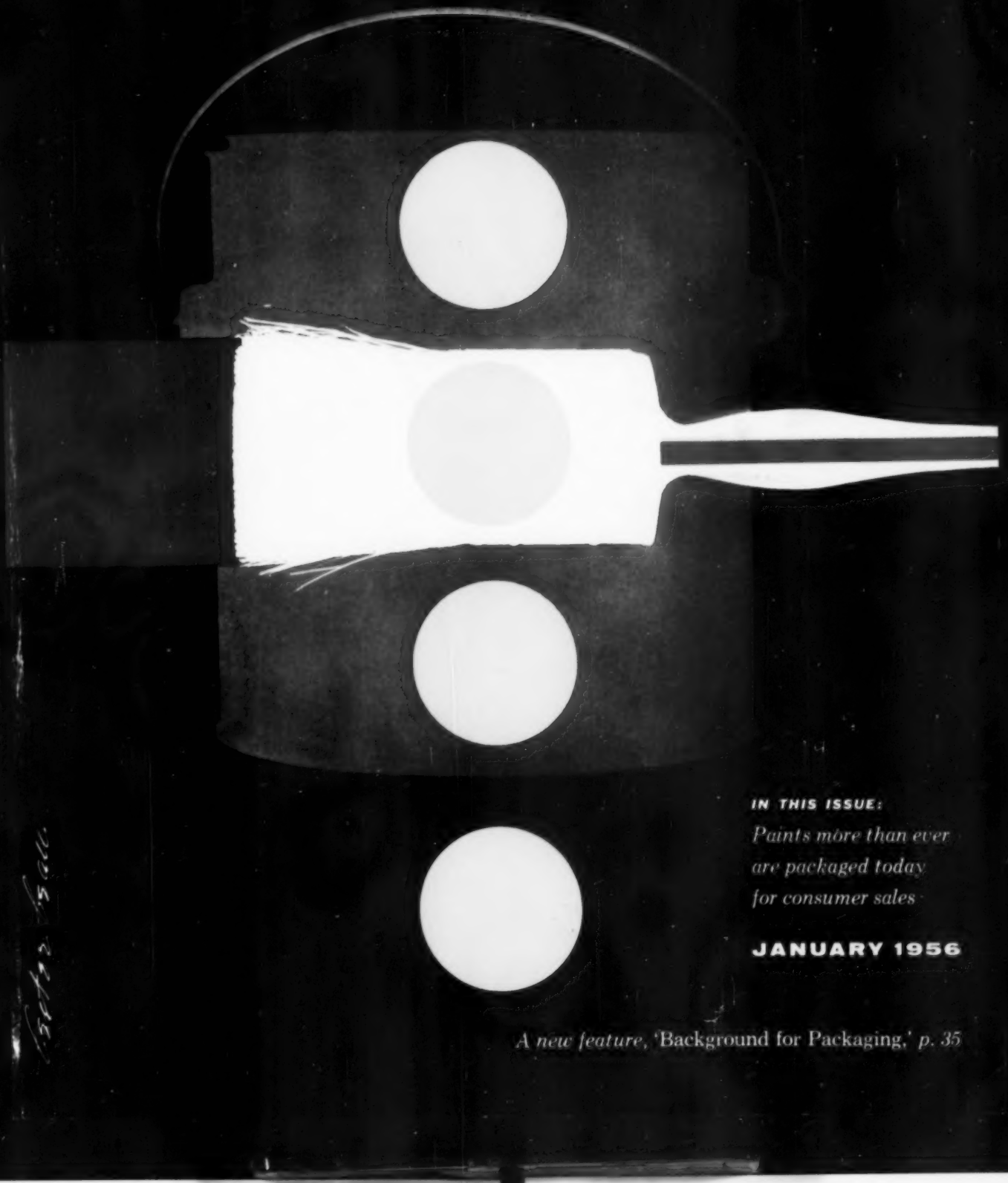


MODERN PACKAGING



IN THIS ISSUE:

*Paints more than ever
are packaged today
for consumer sales*

JANUARY 1956

A new feature, 'Background for Packaging,' p. 35



It's easy to keep these hands beautiful

Standard shipping containers can now be opened effortlessly at home without tugging, straining or nail breaking—when they're sealed with National's SOFT SEAL adhesive! SOFT SEAL also has a reassuring feature for shippers. Its holding strength will not permit containers to pop open during shipping or storage.

Further, SOFT SEAL performs a good will advertising mission for manufacturers. Shipping containers can be now opened in stores without being mutilated. They still have a clean, trim appearance when reused for home deliveries. Here again, you'll find that National has made another worthwhile contribution to the packaging industry.

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ADHESIVES

RESYNS®

NATIONAL STARCH PRODUCTS, Inc., 270 MADISON AVE., NEW YORK 16, N. Y.

Want your carton to fit your market
as well as your product?



The shape of your carton has more to do with the shape of your sales curve than you may think.

Fitting your product is only one job a carton does. It also must fit your market. The yardstick we use to make sure your carton not only houses your product securely but helps sell it, too, is Gair Package Analysis®. It finds the answers to questions like these:

Does your product call for a "showcase" carton that *displays* it to shoppers? Do you have a *shipping* problem? Or is *cost* the major factor in your market?

Whatever the answers, it's up to the structural designer to create the shape that helps make your carton *stand out . . . and sell out!* To do that he's got to know folding cartons from paperboard right through automatic packaging machinery. At Gair, he does.

☐ Gair Package Analysis is a service performed by Gair to insure that your carton meets the needs of your market. Phone us today — a Gair packaging expert will call at your convenience to fill in the details.

GAIR
ACM



creative engineering in packaging

FOLDING CARTONS • SHIPPING CONTAINERS
PAPERBOARD • KRAFT BAGS AND WRAPPINGS

ROBERT GAIR COMPANY, INC. • 155 EAST 44TH STREET • NEW YORK 17, N.Y.

FC55

JANUARY 1956

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*A new department
beginning in this issue*

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MANY SIZES IN YOUR LINE?

Carton them all *Automatically* with one REDINGTON...

Cartoning a multiple-size line need not mean putting up with hand-packaging's higher costs, variations in production speed and quality of finished packages, and general all-around unsatisfactory performance.

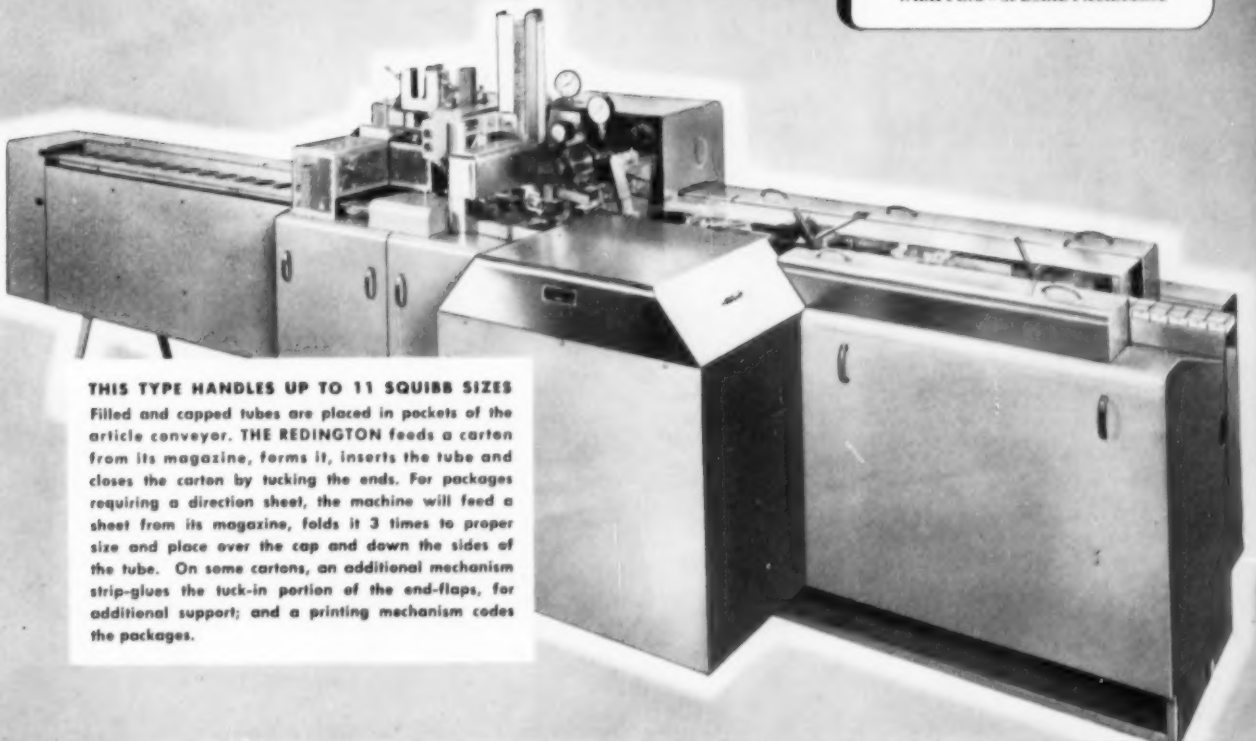
One REDINGTON can usually take your production out of the "problem" class. It can turn out better packages, faster, in a wide range of sizes—*automatically*. Size change-overs are simple and swift; and machines of the type illustrated are equipped with a variable speed drive so that you can easily fit production speed (from 50 to 200 a minute) to particular requirements.

REDINGTON makes many types of automatic machines—almost certainly, there is one to fit *your* situation. Why not let our engineers put REDINGTON's more than half a century of packaging experience to work for you? Call us in now to talk over your set-up—and send for our complete, fully illustrated catalog.

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**AUTOMATIC MACHINES for
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THIS TYPE HANDLES UP TO 11 SQUIBB SIZES

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575 Madison Ave., New York 22, N. Y.
Telephone: Plaza 9-2710

President and publisher
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Branch offices

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Phone DElaware 7-0060
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Phone SKyline 1-6200
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MODERN PACKAGING®

How fast can you go?

The momentum of the nation's economy is wonderful. New objectives flash by like so many landmarks along the flight route and riders can gaze at the patchwork countryside with a feeling of swift approach to a forward destination. What that destination is and what lies beyond makes thoughtful observers wonder. For we have never gone this fast before.

Extensive new capacity is being readied for production; research programs that have been intensively activated for the past five years are ready to release a flood of new products. And the thrust of automation threatens to push the economy across what may prove a whopping sound barrier in marketing and merchandising.

Obviously it is marketing, not production, that holds the answer to how fast we can go and whether we can cross boom-bust barriers without having pilots black out, customers fall out or the economic machine go out of control.

It is for this reason that managements, at highest level, seek new merchandising strategy and new means of bridging the gap between push-button production and push-button living. And when it comes to bridging this gap, there is only one medium of automatic selling that counts. That medium is the package. In any packaged product field you turn to—food, detergents, soft drinks, pharmaceuticals, hardware—there is not one where packaging leadership is not synonymous with product and sales leadership.

Norman F. Greenway, president of the Folding Paper Box Assn. and senior vice president of Robert Gair Co., sums up this concept of packaging by stating: "A very large portion of American business rises or falls on the ability of its package to translate billions of dollars worth of advertising and promotion into action at the point of sale."

Because of the growing awareness that packaging is the vital link between merchandising effort and sales, packages will be used more successfully in 1956 than ever before, aided by a flood of new materials, new packaging concepts and the demand to sell to survive.

The article on page 85 in this issue reviews major developments in packaging materials and methods, with the thought in mind that packagers want new ideas, not statistics. The speedometer may be exciting, but this is not the time to sit back and wait for an idea to catch up with you.

The Editors

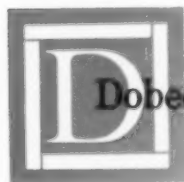


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packages that pack a sales punch!

Anybody can make packages that contain. Dobeckmun creates packages that sell. They attract first customers through imaginative design and impressive display. They build repeat demand by delivering your product at the peak of its freshness and appeal. Dobeckmun has created over a thousand packaging combinations to date. Why not sign in your present package for a routine check-up and diagnosis? Contact:



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Paper Canisters KEEP THEIR POWDER DRY!



Gunning for garden bugs with this powder pump gun is the modern way to attack plant insects... and the modern way to package *Carac Rose and Garden Dust*. HARCORD's sealed, tamper-proof cylinder is the weapon which shoots to kill with an easy sliding motion! HARCORD packages like these have become indispensable sales weapons for alert merchandisers like The Carac Corporation.



AMMUNITION for insect control is one of the many areas where HARCORD packaging plays a big and budget-conscious job... because these adaptable paper canisters are so well suited to the insecticide field. Special "moisture-proof" processing helps maintain the free-flowing high potency of many powdered insect killers. Let HARCORD engineering "know-how" produce the canister that will suit the precise purpose of your product... well within your budget!



Sears Roebuck & Co. puts many a label on HARCORD containers. This fast-selling cross country *Fruit Spray* uses a square, sturdy shaker can... because it stands up well at the counter, in mail order shipment, on the garden shelf. HARCORD quality and competitive price protect the contents... and the profits!



Acme Paints has attained excellent consumer recognition for 6% Chlordane Dust packaged in a HARCORD paper canister. Response indicates strong trade and consumer acceptance of this colorful package—a perfect eye stopper.

You Sell It Better... because You Say It Best with PAPER CANISTERS by



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by using

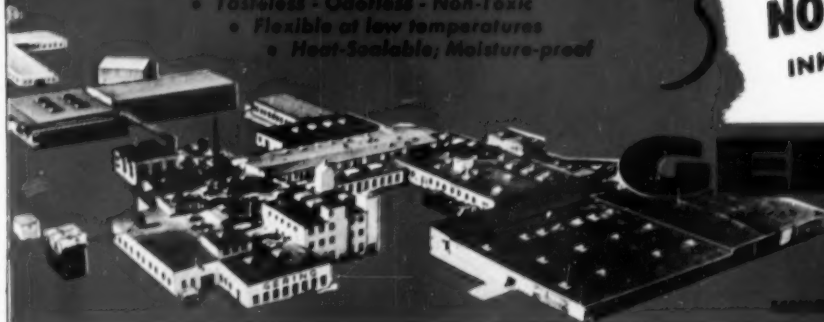
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NON-rub-off
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PROTECTED BY ENVELOPE OF
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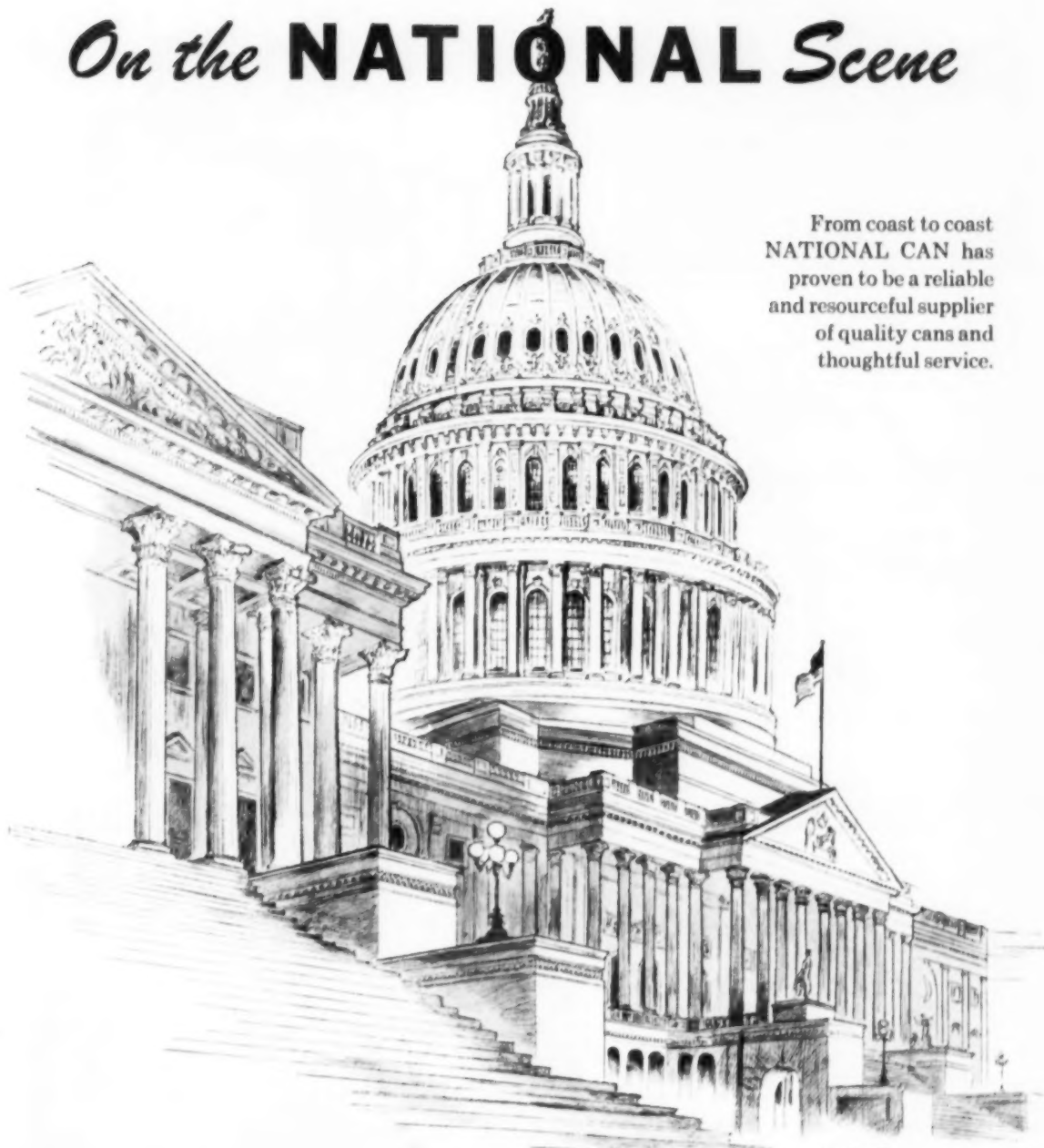
PROTECTIVE PAPERS FOR PACKAGING

GLASSINES AND GREASEPROOFS

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On the NATIONAL Scene

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NATIONAL CAN has
proven to be a reliable
and resourceful supplier
of quality cans and
thoughtful service.



Charles Berger

THE CAPITOL—WASHINGTON, D. C.



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...PLANTS FROM COAST TO COAST

STOKESWRAP

packaging
assures impulsive
sales appeal
at low cost

Automatically

FACT #1

Modern retail merchandising demands packaging that sells at the point of purchase... that helps *display* the product... *protects* it from damage... *secures* attention on the shelf.

FACT #2

A Stokeswrap package gives your product its own *showcase*... *couches* it in an *attractive background*... *styles* it with *eye appeal* because...

Stokeswrap forms the package from almost any heat sealing material *pre-printed as you desire*, fills it with a *precisely controlled amount of product*... *seals* it against air and moisture... *codes* and *tags* the package if you wish... *and it does all this automatically at speeds up to 140 per minute!*

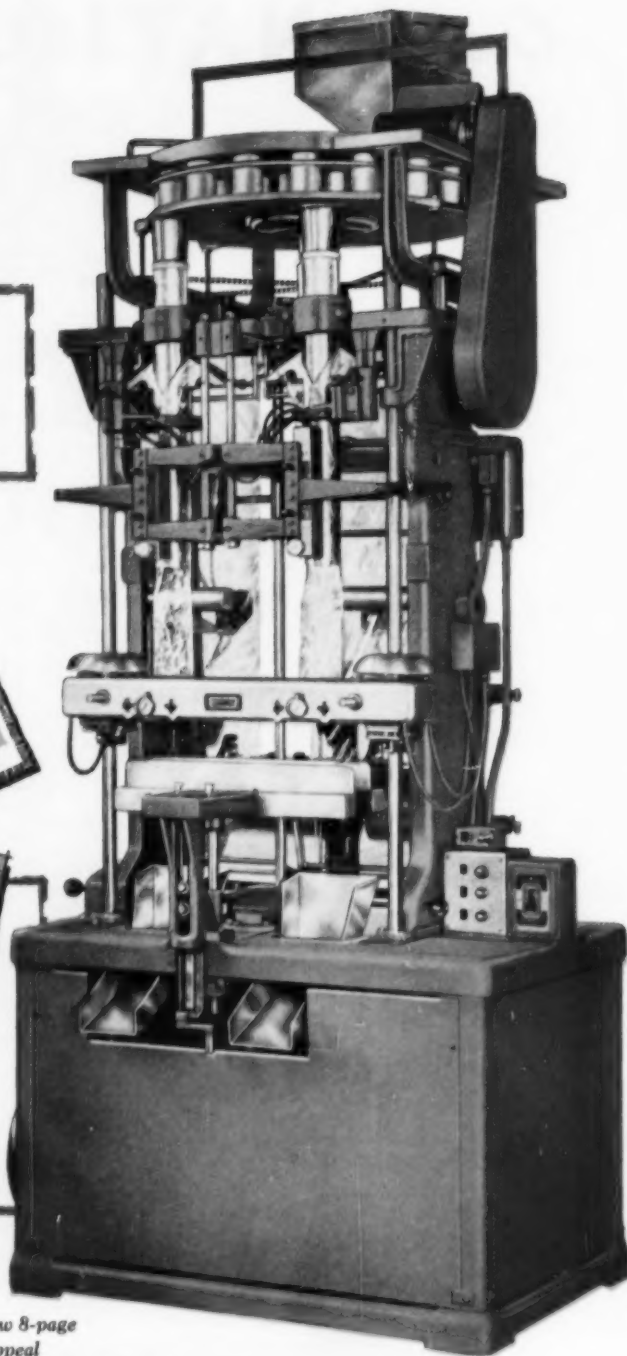


FACT #3

General Mills, Inc., Hawley & Hoops, Inc., Bluehill Foods, Inc., Cook Coffee Co., Avon Products, Inc., and Proctor & Gamble use Stokeswrap to assure sales appeal. Many other leading manufacturers and processors of foods, nuts, candy, coffee, cosmetics and chemicals have solved their packaging problems equally successfully with Stokeswrap.

If your products are fighting for attention on the retailer's shelf, investigate Stokeswrap.

Write today for your copy of the new 8-page catalog P-801 and discover how Stokeswrap eye appeal can help create more impulse sales for you!



STOKES & SMITH CO.

4904-J SUMMERDALE AVENUE, PHILADELPHIA 24, PA.

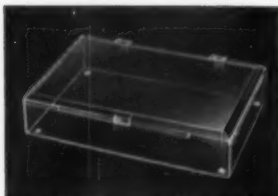
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SUBSIDIARY OF FOOD MACHINERY AND CHEMICAL CORPORATION

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beautifully sewed up
in TRI-STATE show window packaging



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6-5/16" x 9 1/2" x 1 1/2".

From a huge variety of stock sizes and shapes, or we will mold large quantities to your specifications.

Holiday remembrances are a major project in company relations today. *The Heminway & Bartlett Mfg. Co.*, for 66 years makers of threads for industrial and home sewers, has come up with a gift solution that is a veritable "treasure chest" of good will. It's this TRI-STATE jewel-like container . . . filled with bright-colored nylon threads that look so gift-y in the crystal clear box.

This is one of many areas in which TRI-STATE rigid plastic boxes have added dimension to the most staple products. Today, in practically every type of merchandising and promotion, TRI-STATE "bonus boxes" have become a symbol of better product display, product protection, and increased sales.

Look into the world's greatest assortment of rigid plastic boxes for a new lift for your product.



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E-Z POP

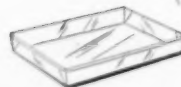
POPS UP PROFITS WITH REYNOLDS ALUMINUM CONTAINER PACKAGING SERVICE

The more "pop", the more popcorn and the more repeat sales! That's what E-Z POP gets with Reynolds Aluminum Container Packaging Service!

This means more than the Reynolds Aluminum popper-pan and expansible foil "lid"...more than merely keeping "fresh" the corn, salt and shortening. For popping quality...for kernels that pop up to 38 times their size...the moisture in the corn must be retained!

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For specific recommendations for your product, call the nearest Reynolds Sales Office. Or write **Reynolds Metals Company**, General Sales Office, Louisville 1, Kentucky.



**Proven Sales-Booster
...the Reynolds Wrap
Aluminum Packaging Seal**

Continually promoted in full-color, full-page national magazine ads...on Reynolds network TV...and in dramatic store-wide "rainbow" displays. Write for full information.

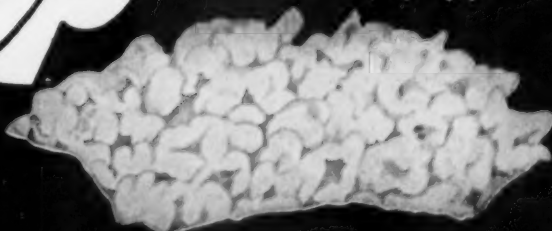
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REYNOLDS ALUMINUM

See "FRONTIER," Reynolds great dramatic series, Sundays, NBC-TV Network.

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makes about a
gallon of hot,
delicious **POPCORN**
in its own **MAGIC**
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**NEW-
IMPROVED**

pop it right in this pan



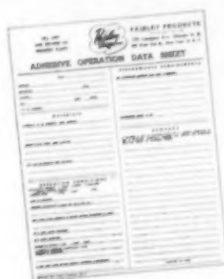
E-Z POP
pop it in its own pop



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Our responsibilities have grown in proportion to the progress of American industry. The superior excellence and dependability of Paisley Scientific Adhesive Service has resulted from the loyalty, cooperation, and constructive criticism of our many fine customers and friends. Our future years are dedicated to the continuation of the service which has brought us to this milestone in our career.



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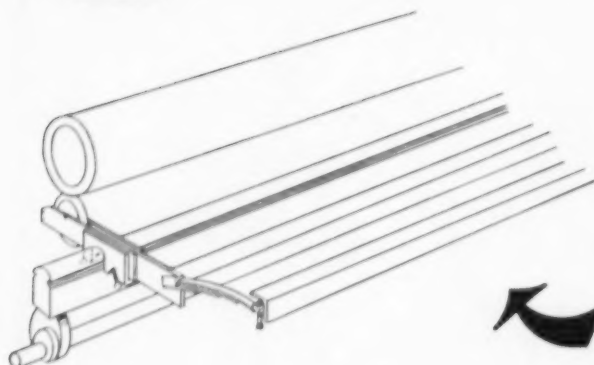
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... which was introduced over 10 years ago, featuring hardened side plates, assembled precisely with machine screws, so that knife runout is held to very close limits to maintain accurately slit widths.

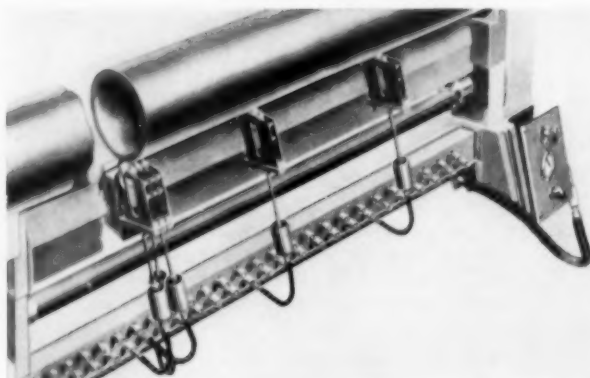
THEN WHY NOT INVESTIGATE . . .

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TO UTILIZE OUR LATEST DEVELOPMENT

THE 1/2" WIDE MODEL 654 AIR-OPERATED KNIFE HOLDER

... with hardened side plates and precision assembled to maintain accurately slit widths. It will increase your knife life between sharpening approximately four to five times. Exact control of slitting pressures can be maintained and a change in slitting pressure can be achieved by a simple valve adjustment. The knives automatically retract when air pressure is released. 1/4" cuts can be made by double banking of 1/2" levers.



The hardened steel sleeves as illustrated are stocked by us in the following sizes: 3" I.D., 4" O.D. and 5" I.D., 6 1/4" O.D., both sizes in lengths 8", 9", 10" and 11". Special sizes made to order.

The score cut slitting knives illustrated above are kept in stock, plus all spare parts shown on the levers and knife holders. Score cut knives other than illustrated are kept in stock and special sizes made to order.

JOHN DUSENBERY COMPANY, INC.

275 GROVE AVENUE, VERONA, N. J.

Tel: Verona 8-3915

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SLITTERS, WINDERS, CONSTANT TENSION UNWINDERS, KNIVES, LEVERS, SLEEVES
SPECIAL CONVERTING EQUIPMENT DESIGNED TO MEET YOUR PRODUCTION PROBLEMS



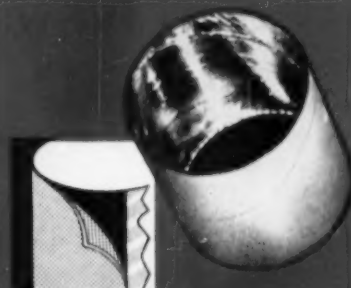
LARDEPAK LINER.

Lardpak liner inside, then fibre, and printed, Lardpak paper used outside. A grease barrier for scores of materials. Example of use: caulking compounds.



LARDEPAK, PITCH-BACKED.

This combination offers the packer both grease and moisture resistance. Example of use: various chemicals.



FOIL LINER.

Foil backed by pitch followed by two layers of fibre laminated with glue. Pitch serves two purposes: As adhesive for foil (2) sealer for pin holes in foil. Example of use: food preservatives.

• There are many sides to the R. C. FIBRE CAN Packaging Story

- a complete line to fit your packaging needs

Have You a Fibre Can Packaging Problem?
Contact your nearest R. C. Sales Office for experienced
advice. There's no obligation.



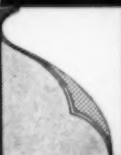
CHIP KB.

Pitch layers between layers of fibre, for moisture resistance. Convoluted can shown here. Example of use: wallpaper cleaner, cold water paints.



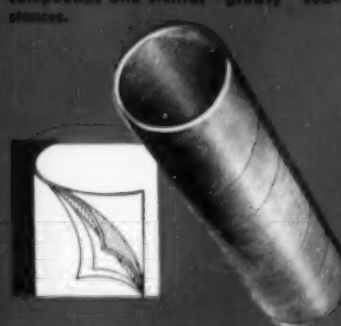
PARAFFIN COATING.

Paraffin lining obtained two ways: spiral wound from coated fibre, or sprayed in convolute can. Example of use: moth crystals, drugs, etc.



LAMINATED RUBBERWRAP.

Lardpak liner inside, followed by fibre, followed by two pieces of glassine laminated together with wax. High grease and moisture resistance. Example of use: caulking compounds and similar "greasy" substances.



FOIL PAPER-BACKED.

Foil backed up by 20 lb. white bond paper, which serves as inside ply of container. Ideal for packaging that requires both moisture and grease resistance. Example of use: ready-to-heat biscuits, and similar food products.

R. C. CAN COMPANY

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Branch Factories: Arlington, Tex.; Rittman, O.; Turner, Kans.



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Good News for The Butcher / The Baker



THESE are a few of the meat and bakery products now being marketed in PLIOFILM window packages. PLIOFILM is ideal window material—for these reasons:

It's strong and puncture-resistant. It doesn't break. It's grease-resistant—doesn't smear. And it's wonderfully moisture-resistant, doesn't shrink or stretch or wrinkle with change in humidity conditions.

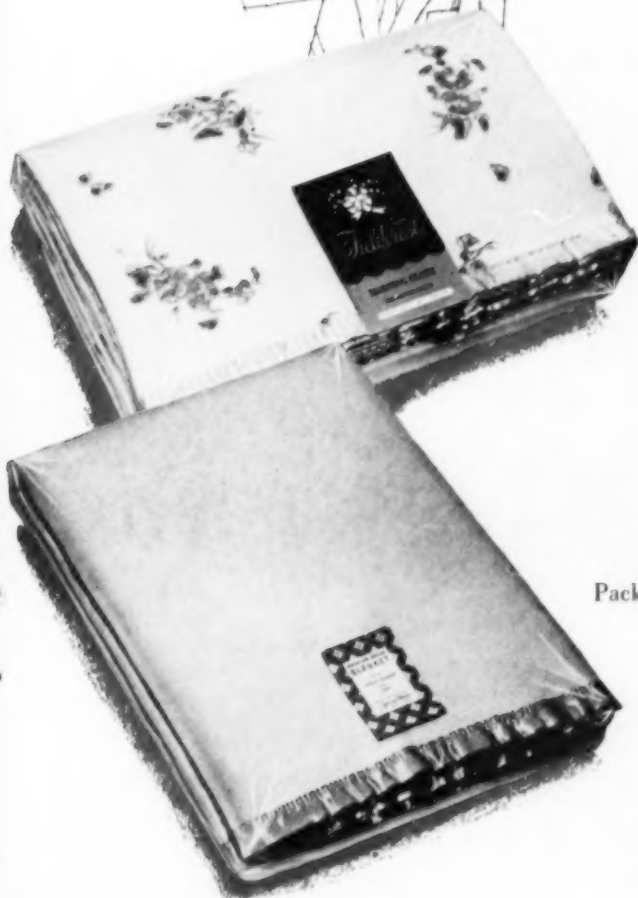
Is a PLIOFILM window package the answer to your problem? Why not let the Goodyear Packaging Engineer help you decide? Write him at Goodyear, Packaging Films Dept. M-6418, Akron 16, Ohio.

Good things
are better in

PlioFilm



The Smart Blanket Maker



IF you're packaging blankets, or any textile product, you'll welcome VITAFILM — latest advance of the Goodyear Film Development Laboratories. It gives you these important advantages:

- **High tensile strength**
- **Superior clarity**
- **Exceptional resistance to sunlight—excellent aging qualities**
- **Outstanding tear-resistance—permitting almost limitless handling without danger of breakage**
- **Heat-sealability within a wide range of temperatures—a plastic film that heat-seals on current commercial overwrap equipment**

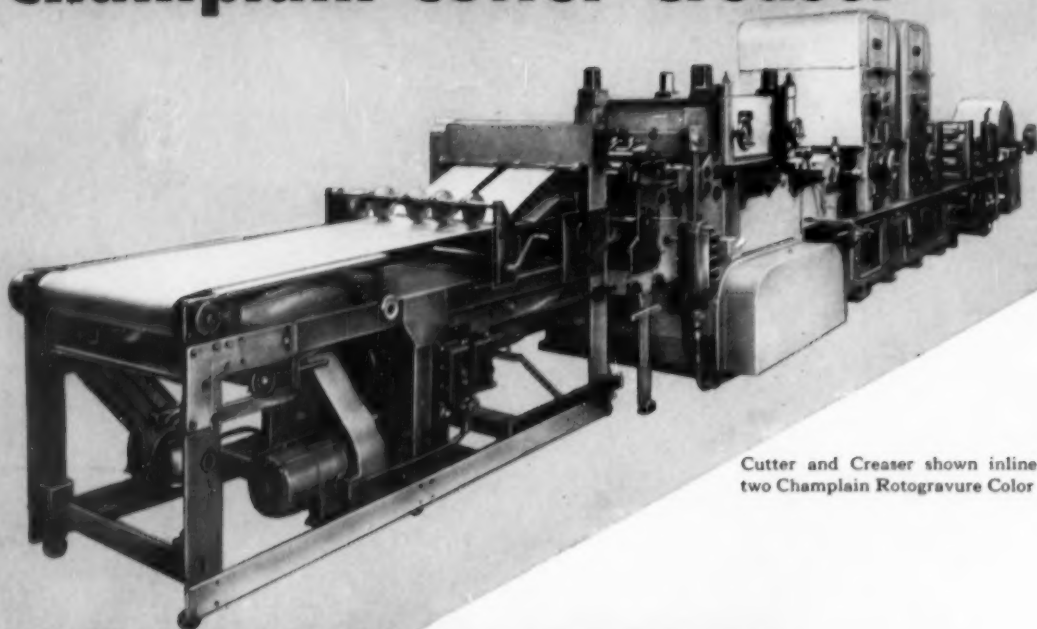
For further details, write the:
Goodyear Packaging Engineer,
Packaging Films Dept. M-6413, Akron 16, Ohio

Pliofilm, a rubber hydrochloride, Vitafilm, a Polyvinyl chloride
—T. M.'s The Goodyear Tire & Rubber Company, Akron, Ohio

Vitafilm a new



From this **NEW** roll-fed Champlain Cutter-Creaser



Cutter and Creaser shown inline with two Champlain Rotogravure Color units.

PLATEN PRESS QUALITY CARTONS at better than cylinder press speeds

At last — a Cutter-Creaser that puts the manufacture of high quality but low-cost cartons well within the reach of *all* carton makers. In *one* pass, it cuts, creases, and automatically strips cartons from a continuous web — and brings to the carton manufacturer all these **PLUS** advantages:

- **INCREASED PRODUCTION RATE**... 7,500 to 10,500 impressions per hour.
- **MAXIMUM QUALITY**... the high quality of platen press cutting and creasing — at better than cylinder press speeds.
- **THOROUGH AUTOMATIC STRIPPING**... all intricate internal and interlocked scrap is stripped and carried away *automatically*.
- **LOW DIE COST**... with inexpensive steel rule and block or jig dies.
- **CONSISTENT ACCURACY**... patented intermittent feed insures uniform accuracy, even at highest speeds.
- **MINIMUM DOWN TIME**... changing of dies and make-ready is only a matter of minutes.

By itself, this new Cutter-Creaser has no equal. But when used *inline* — with rotary printing equipment — you gain not only the advantages of the Cutter-Creaser but *all* these *additional* advantages:


- **ABSOLUTE MINIMUM HANDLING OF STOCK**... "once through the press" principle means no carting and storage between Multi-color Printing, Lacquering, Die-Cutting and Stripping.
- **IMMEDIATE INSPECTION OF FINISHED CARTONS**... from roll stock to finished cartons takes only a few seconds.
- **ACCURATE REGISTER**... quick, one-pass operation of all inline equipment allows no time for change in character of stock.
- **MINIMUM SET-UP TIME**... no die impression needed for printing register—dies and plates are pre-matched.



Champlain &



Champlain manufactures a complete line of roto-gravure, flexography, rotary letterpress and allied equipment for packaging and specialty printing.

Write today for catalog of Champlain press equipment and full information on the Champlain Cutter-Creaser. Champlain Company, Inc., 88 Llewellyn Avenue, Bloomfield, N. J. Chicago Office: 530 N. Michigan Avenue, Chicago 11, Ill. 



Fresh packaging success in Cellothene

film laminate of cellophane/polyethylene

CRESCENT CHEESE CO. of Montreal has scored another outstanding success with these two versions of a half-pound package containing 8 individually cellothene wrapped slices of processed cheese.

Successful, the moment it hit the counter—48 dozen packages were sold the first day in one leading supermarket. Sales continue high. Housewives were quick to sense the obvious advantages of Cellothene assured freshness in a food that hitherto had only a short refrigerator life after opening.

Strange as it may seem, the new package sells for 4¢ a pound less than other nationally advertised brands. This is made possible by high-speed fully automatic packaging equipment that slices, fills

and seals "in line" from Cellothene printed roll stock. Cellothene combines, in one single film, the heat-sealing leak-proof qualities of tough polyethylene with the sparkle and printability of cellophane. With Cellothene, product shrinkage is reduced to a minimum. Cellothene offers you and your product maximum protection inside and out. Many months of shelf testing has demonstrated freedom from mold development or growth in Cellothene packaged cheese.

Success stories like this may be yours for the asking. Write today . . . Cheslam technicians will promptly forward full information and supply you with a list of Cellothene converters and equipment manufacturers best qualified to help you package your product.

Picture YOUR PRODUCT in Cellothene

CHESLAM CORPORATION

Division of Chester Packaging Products Corp.

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Whatever
the job...



HIGH ADHESIVE hold and impact strength of Permacel 16 Strapping Tape assures safe arrival of cartons. Moisture resistant. Available in seven colors. One of a complete line of Permacel packaging tapes.

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From Permacel Research... the right tape for any job. Write Permacel Tape Corporation, New Brunswick, N.J.

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For many centuries, Arab craftsmen have practiced the delicate art of the silversmith, working with great patience and attention to detail. They are especially skilled in filigree and in the use of silver for ornamental purposes.

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This handsome paper sample is Artcote Silver, No. 0361, printed by letterpress. Artcote pyroxylin metallic coated papers are available in gold, silver, and copper finishes . . . gummed or ungummed, embossed or plain. Paper stock available in 60 lb. weight . . . cover stock available up to 15 point. All Artcote papers and cover stock accept halftone, four-color process, silk screen, gravure, offset lithography, letterpress, and flexographic printing. Write today for sample book.

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NO WATER! NO GLUE! NO CLEANUP! STICK TIGHT! PERMANENT OR REMOVABLE

Easy as 1, 2 to Apply!

Easy to Apply . . . Sure to Stick!

Gone is the glue pot! Gone is water! Steigerwald Sensi-Stick pressure sensitive labels eliminate forever old-fashioned start-up and clean-up labeling machine jobs.

Sensi-Stick simplifies labeling to a 1, 2—pick and stick quick way—Individual labels or Dispenser automatically feeds individual labels on a tape ready for rapid application.

Economical — Faster Better for all surfaces

Steigerwald Sensi-Stick labels hold securely on all surfaces—won't buckle, curl or rub off even where others fail and nothing else will hold—choice of permanent or easy-to-take-off, surface safe adhesives.

Beautiful designs

Reproduce your present label just as it is on Sensi-Stick or consider a new design with a choice of gold or silver foil; embossed; lustrous papers and sparkling inks to add an extra note of quality to your product. Use Sensi-Stick to show you the way to the world's fastest hand labeling operation.



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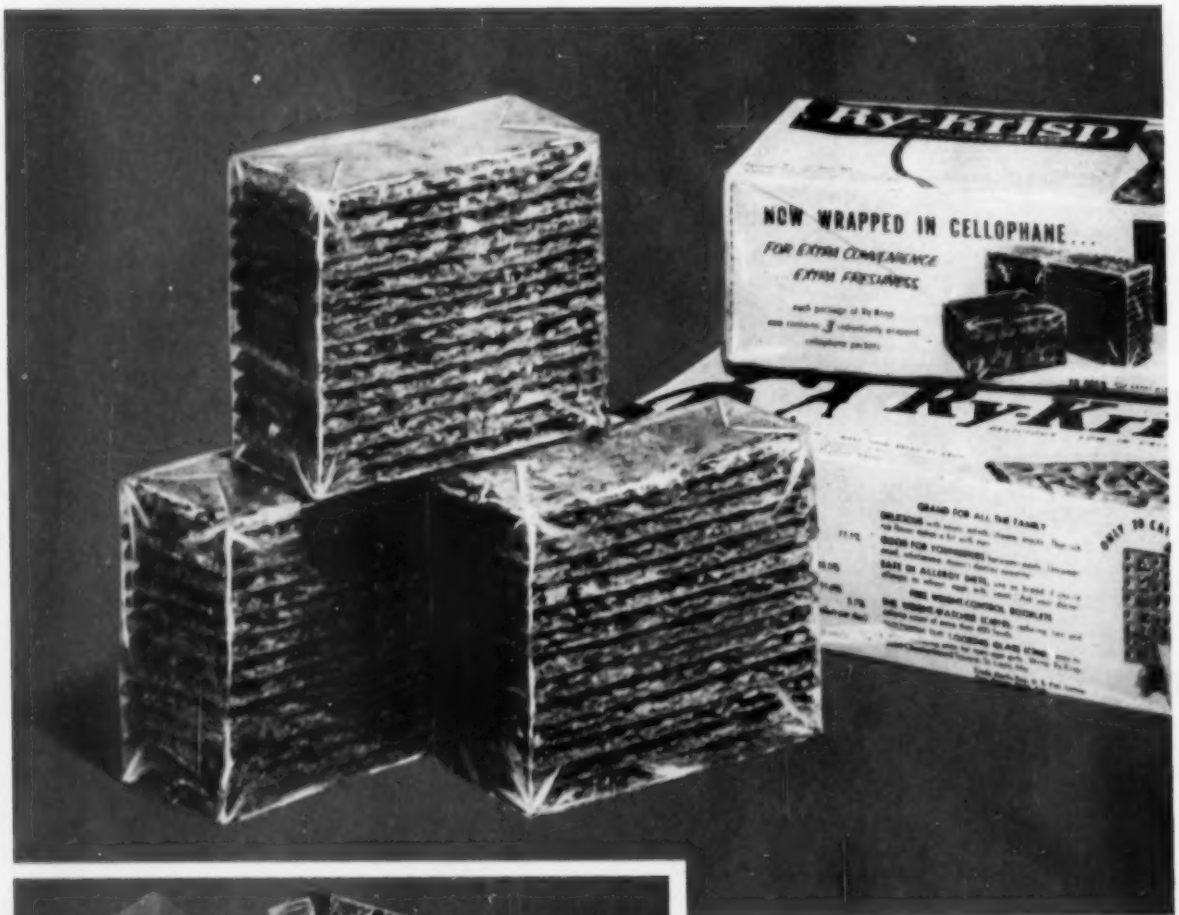
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Call, wire or write today for a STEIGERWALD representative to see you at your convenience. Also ask our representative about our complete label design service offered without obligation.

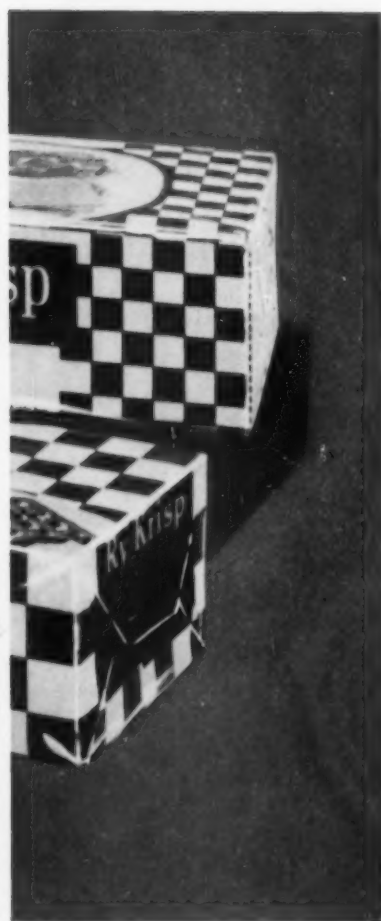
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Ry-Krisp selects for its new



• These Ry-Krisp "Individual" packets, used in restaurants and institutions, are wrapped in crystal-clear Du Pont cellophane for extra freshness, protection, cleanliness . . . find high consumer acceptance.





cellophane fractional packages



• Ry-Krisp's consumer package, as well as their 8-pound institutional caddy pack and individual restaurant servings, now enjoys the merchandising advantages of sparkling-clear cellophane. Ry-Krisp's general purchasing agent says, "We felt that cellophane would give us a de luxe appearance when the package was opened. Consumers want the convenience of fractional units individually wrapped for extra freshness."

Versatile Du Pont cellophane can bring extra convenience and sales appeal to *your* package. Plain or printed, cellophane promotes extra impulse sales. Talk to your Du Pont representative or converter of Du Pont films. E. I. du Pont de Nemours & Co. (Inc.), Film Dept., Wilmington 98, Delaware.

ONLY DU PONT OFFERS YOU ALL THESE PACKAGING ADVANTAGES

Over 100 varieties of film  technical experts to advise you  consumer buying studies to guide you,  powerful national advertising  to back you!



BETTER THINGS FOR BETTER LIVING
... THROUGH CHEMISTRY

DU PONT PACKAGING FILMS

CELLOPHANE • ACETATE FILM
"MYLAR" POLYESTER FILM

MYLAR®—A TOUGH FILM for tough packaging jobs



Packaging with new Du Pont **MYLAR**® offers sales appeal with extra durability

This Du Pont "Mylar" polyester film package—almost impossible to tear and with sparkling sales appeal—has been adopted by Safe-in-Suds, Inc., as a top promotional feature in marketing their new "Forum" shirt. Besides its value as an unusual merchandising feature, the strength, tear resistance and long life of "Mylar" gives Safe-in-Suds and its retailers a package which stands up under rough handling, assures maximum shelf life. Only "Mylar" offers you all these

"Mylar" is Du Pont's registered trademark for its polyester film.

important packaging advantages:

- Vivid clarity**
- High tensile, tear and impact strength**
- Extended shelf life**
- Stability—retains its dimensions from -80° to 300°F.**

Contact your Du Pont representative, or converter of "Mylar" polyester film for complete information on all applications. Or write: E. I. du Pont de Nemours & Co. (Inc.), Film Dept., Wilmington 98, Del.

DU PONT PACKAGING FILMS

CELLOPHANE • ACETATE FILM
"MYLAR" POLYESTER FILM



BETTER THINGS FOR BETTER LIVING
...THROUGH CHEMISTRY

Report to Polyethylene Bagmakers

**TWO YEARS
ONE YEAR AGO**

*we launched our training
program for key personnel in
the operation and maintenance
of our equipment and in
understanding the
nature of the specialty films.
We are proud to report the
outstanding success of our school
and to pass along to
converters everywhere a summary
of our experience.*

We have worked with film produced by many different methods of extrusion, by every known treatment process, run on all types of presses. After a year of constant application the school has positively established that the secret of successful polyethylene converting — to produce better bags with less waste — is not a machine, not special films, but **KNOWLEDGE!** Our most satisfied customers are those who have sent personnel to our school with resultant increases in

efficiency up to 100%.

It was a sad but too true fact that many converters held to the view that an inexpensive machine did not require top grade operators. Our experience proves conclusively that apt, enthusiastic operators developed through adequate training will alone provide a tremendous increase in production and result in reduced waste and lowered maintenance cost.

It follows that we will continue to expand this service...

a school for bagmakers

expanding production facilities?
up on your packaging film technology?
achieving maximum production efficiency?
do your key personnel have the necessary 'know-how' in this field?

Some industries undergo periods of very rapid expansion that create shortages of high-level production personnel and makes difficult keeping abreast of vital technological and operational developments. On-the-job training is an alternative as it further improves production.

We have recognized the need for a school to exist in the field of polyethylene converting. Accordingly, as a service to the industry, we have established a school for the training of key personnel in the operation and maintenance of our equipment and the basic nature and potentialities of the specialty films.

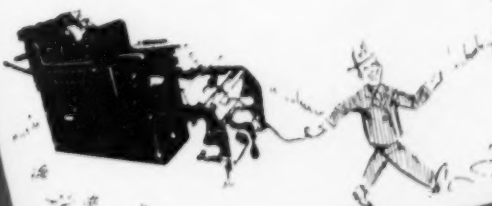
Regular courses are held on each of these films to fully qualify personnel to cope with the problems of production and maintenance as well as to provide the essential background knowledge.

For further information, write:

SCHOOL DIVISION

Roto Bag MACHINE CORP.

120 East 13th St., New York 3, N. Y.



THE KNOWLEDGE IS HERE TO SHARE!

Roto Bag-Holweg

DIVISION

CONAPAC

MACHINE COMPANY • 120 EAST 13TH STREET, NEW YORK 3, N. Y.



handles between 300 and 400 cans per minute at lowest cost

Here's a machine that's designed to meet today's increasing demand for high-speed can-making production at lowest cost . . . the Hamilton 301 Can Tester. This automatic air-pressure tester is capable of speeds between 300 and 400 cans per minute. It is adaptable to test either open-top or vent-hole types of finished cans with diameters up to $4\frac{1}{4}$ " and heights up to $7\frac{3}{8}$ ".

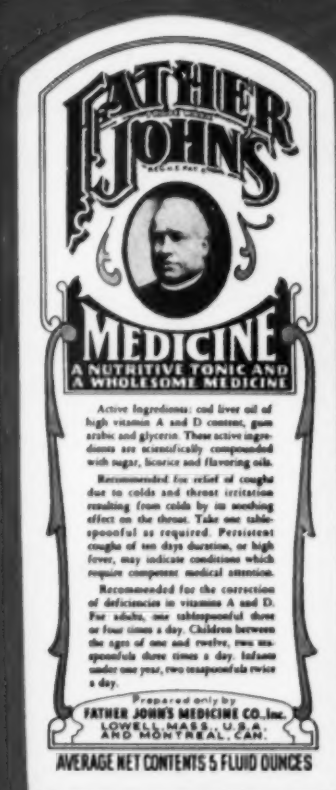
One big feature of the Model 301 is the use of open pockets rather than buckets or pots. This greatly reduces the cost of change parts for the machine. The testing principle of this machine is unique and in stepped-up can-line operation the No. 301 has proved again and again its exceptional ability to detect and reject leakers.

In addition, you'll find this model fully equipped with all the latest safety devices including a spring-loaded ball slip clutch, brake motor and electrical controls.

Why not investigate now the 301 Can Tester and other machines in Hamilton's complete line of modern . . . high-speed . . . cost-cutting can-making machinery. Please address: Hamilton Division, Baldwin-Lima-Hamilton Corporation, Hamilton, Ohio.



Hamilton Division
BALDWIN-LIMA-HAMILTON



BUILDING PACKAGING ATMOSPHERE...

Labels are like people and places. They have the same ability of creating atmosphere — the power to generate definite moods and influence our thoughts.

Take the Father John's label, one of the 60,000 handled by Ever Ready this past year. Here is an atmosphere of confidence and substance. And, this atmosphere which is so important in selling is attained in a number of ways.

LABELS CREATE ATMOSPHERE . . . through color which can suggest fragrance, style and temperature . . . through *typography* reflecting comedy, formality, and strength . . . through the *paper* on which labels are printed . . . through *pictures* like the Father John's label . . . through *shape and size* . . . through their relationship with the glass, plastic, or metal *composition of the package* . . . through the *contrast or similarity* of the label with the color of

the product . . . we could go on and on and on into the night.

The atmosphere created by a package is not the result of any one factor — color, size, illustration on the label — but, rather, it stems from the careful integration of these separate elements. Label engineering is an art which hones to a sharp edge only through experience. That is the reason for Ever Ready's pre-eminence in this field. We produce more than 15,000,000 labels a day!

If you have any kind of label problem, why not call, write or visit Ever Ready today. We'll be happy to work with you.

WITHOUT OBLIGATION, we'd like to send you:

- ☐ The Story of 8 Important Red-E-Stik pressure sensitive applications
- ☐ A Label Idea Kit
- ☐ Samples.



EVER READY LABEL

CORPORATION

117-20 EAST 30TH STREET, NEW YORK 16, NEW YORK

LOOK WHAT YOU CAN DO

IN $\frac{2}{10}$ OF A SECOND*



WITH Velocitron

How long is .2 of a second? It's a mighty short time—yet long enough for this Pneumatic machine to feed and form a carton—starting from the flat—seal the bottom flaps, measure the product by volume, deposit the fill load into the carton and glue the top flaps!

That's moving fast—yet the VELOCITRON can kick out up to 300 completed sift-proof packages per minute while it is delivering the highest average weighing accuracy ever before achieved.

VELOCITRON employs the revolutionary and amazing PNEUMATRON check weighing device, a volume adjusting mechanism, and a combination weight recording and control panel—a complete control “system” which

reduces the usual package weight variation, caused by density, by at least one half.

Masterful design and precision workmanship make this record breaking performance possible. By combining several intricate operations on one machine VELOCITRON eliminates the complication of carton transfer.

Those are the quick, bare facts about VELOCITRON. More details are yours for the asking. Simply request Bulletin 125.

PNEUMATIC SCALE CORP., LTD., 82 Newport Avenue, Quincy 71, Massachusetts. Also: New York; Chicago; Dallas; San Francisco; Los Angeles; Seattle; Leeds, England. Canadian Division: Delamere & Williams Company, Ltd., Toronto.



Packaging and Bottling Equipment

Tested and proved...

by critical users . . .
by time . . .
by varied applications

How these big producers profit with Pfaudler Piston Fillers

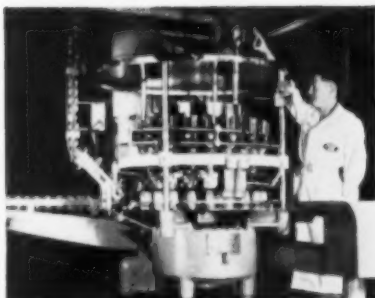
These companies are successfully processing everything from semi-frozen juices to potted meats. They fill tin, glass or composition containers in a variety of shapes and sizes. All use Pfaudler Rotary Piston Fillers. All get fast, accurate filling.

For example, H. J. Heinz gets a breathless 800 cans per minute (has run 1050!) filling baby food with a Model RP-35. Production rates are correspondingly high with 7-, 14- or 21-station Pfaudler Fillers. Even gallon containers can be filled at 100 per minute, using the 7-station RP-7.

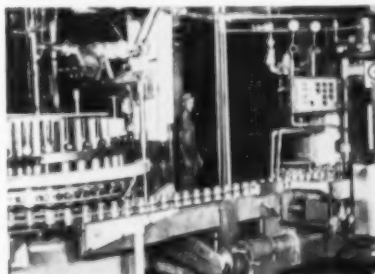
Mechanical efficiency is a profit factor, too. Pfaudler Fillers are accurate to within $\pm 1/10$ oz. No-can-no-fill device prevents waste, keeps machine and containers clean. Model RP-35, equipped with an electric brake, stops rotation within $2/10$ of a second.

Because spillage is avoided, cleaning is less of a chore. Valves and pistons slide out easily for fast cleaning and visual inspection. One man can do the whole job in 30 minutes. He needs no tools either.

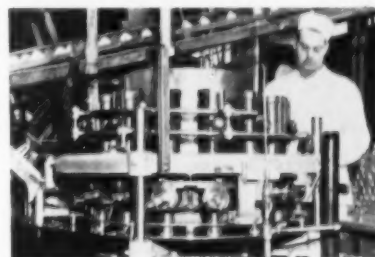
The speed and efficiency of Pfaudler Rotary Piston Fillers have been proved and tested in nearly 10 years of operation by leading names in the food industry. You, too, may profit from the speed, low maintenance and low operating cost of Pfaudler Fillers. Complete data on models and speeds is in Bulletin 911. Send for it today.



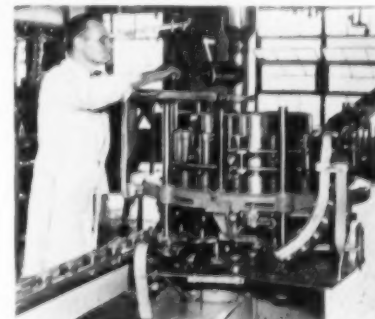
Minute Maid Corporation fills up to 600 containers per minute with Pfaudler 21-station Fillers. 1/10 of an oz. accuracy keeps costs low.



H. J. Heinz Co., at Leamington, Ontario, Canada, fills more than 800 cans of baby food per minute with 35-station Pfaudler Filler, world's fastest.



Hershey Chocolate Corp., Hershey, Pa., fills 300 five-oz. cans of chocolate syrup per minute on each of several Pfaudler 14-station Fillers.



Kingan & Co., Indianapolis, Ind., uses 14-station filler for potted meats. Machine is rated at 150 to 400 cans per minute.

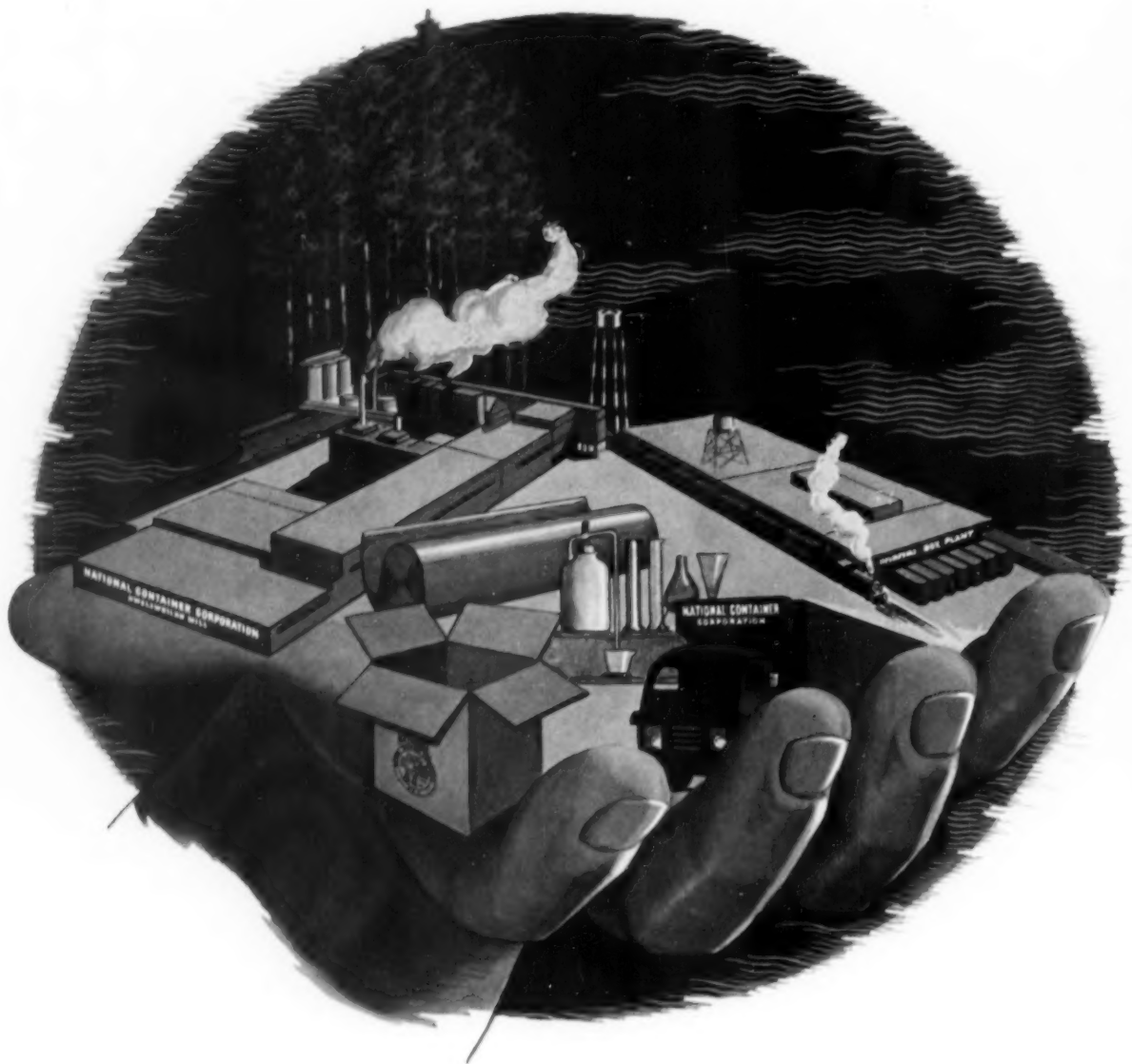
THE PFAUDLER CO., Dept. MP-1, Rochester 3, N. Y.

Please send me, without obligation, your fact-filled booklet "Rotary Piston Fillers," Bulletin 911.

Name _____ Address _____
Title _____ City _____
Company _____ Zone _____ State _____



THE PFAUDLER CO. • ROCHESTER 3, N. Y.



WHAT NATIONAL CONTAINER HAS TO OFFER YOU

All in one hand—everything for the shipping container that meets your actual needs. What is behind National Container? 400,000 acres of timberland . . . 7 mills producing 500,000 tons of Kraft board a year . . . 23 converting plants producing corrugated shipping containers and multiwall bags—one of them close to your shipping platform. A sales-service office close to your office to work out your special needs with you . . . Yes, here is *stability*; more than a quarter-century of experience, and more than \$80,000,000 in assets. All this—at your service!

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Background

for

packaging

Notes,
quotes
and comments

In this new department, the editors of MODERN PACKAGING have joined forces to bring you the kind of sidelight information that may help to bring month-to-month developments in packaging into better perspective. Look for it each month in this same location.

A milestone in the history of packaging films has been reached: polyethylene is now cheaper than cellophane. Leading extruders of polyethylene film now quote standard 1 $\frac{1}{4}$ - and 1 $\frac{1}{2}$ -mil film at 56 cents a pound, down 3 cents—while moistureproof cellophane with recent increase is up 3 cents, to 59 cents a pound. The two have just switched positions.

Ceiling is unlimited on vacuum-formed transparent packaging. Look for one of the biggest manufacturers of light bulbs to have an acetate "skin pack" for multiple units of 10-watt bulbs shortly; volume is estimated at 5 million a year. A tomato repacker is reported considering a similar skin pack. Most unusual is a plan announced by Cornell University to test market a dozen shelled eggs in a vacuum-formed, compartmented, polyethylene tray, heat sealed with plastic film; you can tear off a single unit, they say, boil it and eat it from the package.

Hot fight over right of supermarkets to sell packaged drugs, centering in New Jersey, is watched by all packagers of proprietary drugs. American Stores Co. has brought a civil suit against the N. J. Board of Pharmacy to recover six fines of \$50 each for selling Bayer aspirin and Phillips Milk of Magnesia. The state has lost the first round, with ruling in District Court that these remedies are non-poisonous medicines, hence can't be restricted to drug stores. But an appeal will go to higher court.

Keep an eye on vending machines. Not only food items but toiletries, says *American Druggist*, will be sold from 24-hr. vending machines that Independent Grocers Alliance plans to operate soon outside many of its member stores across the nation. More than \$1.7-billion worth of packaged products were dispensed from 2,965,630 vending machines last year, says the National Automatic Merchandising Assn. Packagers of every frequency-purchase consumer item will do well to consider materials and designs that fit vending-machine needs. (See "Coin-in-the-Slot Selling," MODERN PACKAGING, May, 1955, p. 71.)

Glass aerosols with shatterproof plastic coatings are developing sizable volume in the cosmetic, toiletry and drug fields. Production estimates call for between 25 and 30 million this year, as against 12 million last year, with major gains in the pharmaceutical field.

Aerosols altogether apparently hit a new high last year of close to 300 million units, carrying products valued at about \$300 million—a 50% increase over 1954. There's an indication of what the consumer will pay for package convenience. *Note:* Watch for a big push by aerosol producers this year on food products.

Barometer of business, packaging and otherwise, is demand for fibre boxes. Fibre Box Assn. has been told to expect a 6% increase in demand in 1956 over 1955, with shipments averaging out slightly above demand to allow for needed expansion of users' inventories.

Polyethylene in packaging is undergoing revolutionary changes in several directions. Producers hope that inside coatings with other plastics will end the permeability problems of bottles and tubes. Irradiation may have a similar effect, but is much farther from commercial practicability. Meanwhile, keep an eye on totally new molecular compositions of poly-

[Please turn page]

ethylene, made by low-pressure polymerization, which offer radically different properties of stiffness, hardness, permeability—depending upon the process.

Expect a period of confusion when the low-pressure polyethylenes are introduced late this year. Lumping widely varying types under any one designation won't help. There are at least three basic production methods for resin, covering a wide range of properties, and within each method wide variations are possible. Packagers will need to check properties charts carefully.

Problems of polyester film are less than anticipated. Commercial wrapping and heat-sealing machines are already making good seals with benzyl alcohol as a solvent. But eventual solution of all problems probably will be a thin heat-sealable coating on the film itself, much as cellophane is coated. Look for important early uses of polyester film in bundling—of heavy, valuable items like drugs, extracts, etc., which need long shelf life. *Note:* Rumor that Du Pont has licensed Eastman Kodak to manufacture Mylar packaging film is not true; license covers only photographic film.

Converters seek to free themselves of liability if a packager insists on reverse printing on film packages which permits ink contact with a food product. The National Flexible Packaging Assn. advises members to explain, warn and then go on record in a letter that no responsibility will be assumed. Additionally, an insurance or indemnification clause in the purchase contract may be required.

Saran resin is finding an important place as a coating for other, less-costly films. Saran-coated cellophane is now being marketed by two makers, who can't keep up with demand. (See "A New Polymer-Coated Cellophane," p. 139, this issue.) It is far more durable than conventional moistureproof coating, better in control of moisture, gas, grease and odors. *Coming:* saran-coated polyethylene, offering exceptional clarity, good machine handling and a merger of the best qualities of both films with none of the weaknesses.

Look, says William G. Werner, vice president, Procter & Gamble, "at the packages in your home. I did. I found commodity after commodity with all six faces covered with just plain selling talk, and not a word of straight, honest-to-John service. I found package after package covered with typography of such small size and printed with such worn-out plates as to really discourage rather than invite reading. And I found some packages without a clear statement of what the contents were supposed to be used for."

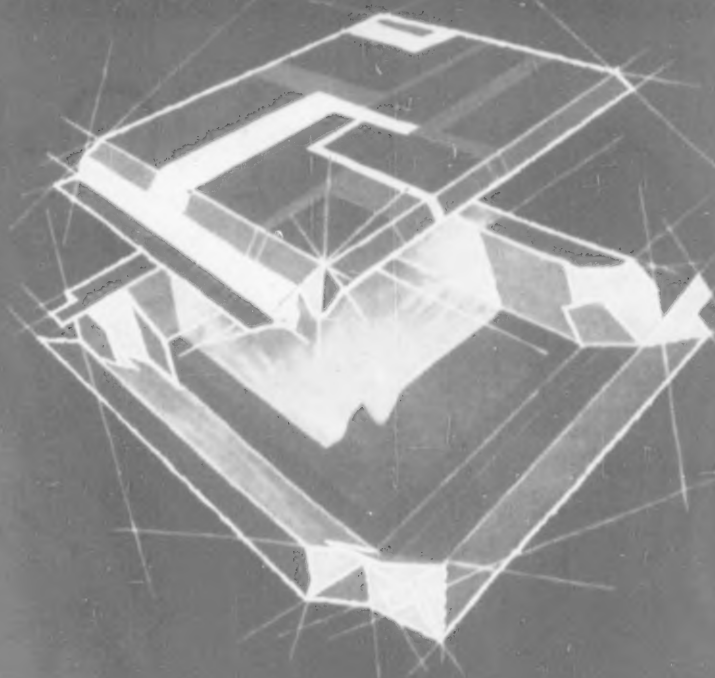
Soft-drink battle waxes hot. Shipments of cans for carbonated beverages have taken a drop, while bottles are up. Meanwhile, the industry is agog over reports that Coca-Cola is branching into flavored sodas, is testing a lemon-lime drink in the South (which Coca-Cola officially denies). Pepsi-Cola, which likewise has never departed from its one flavor, admits it experiments with others.

Anti-litter is a word you'll hear more of this year. The American Automobile Assn. is throwing its strength behind a movement to have the label on every throw-away package carry the emblem of the Keep America Beautiful campaign and an appeal against littering the highways with discarded containers. *Note:* Packagers had better pay heed. Some states are seriously considering restrictive legislation aimed at non-returnable drink and food containers.

Background

for

packaging

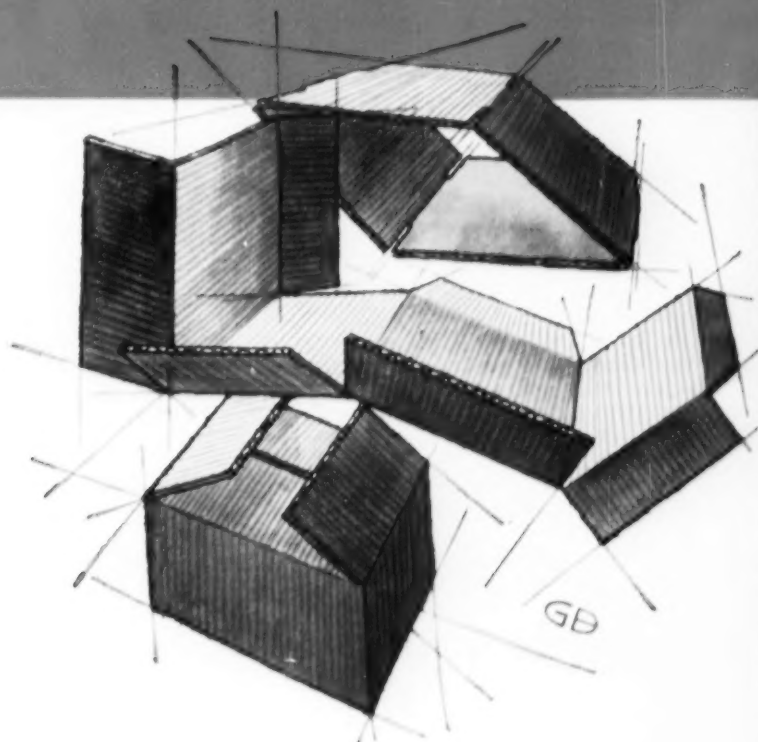


Creative designers of
folding cartons, corrugated
containers, multi-unit
packaging, Cluster-Pak.

**atlanta
cartons**

ATLANTA PAPER COMPANY

ATLANTA 2, GEORGIA



THESE FINE PRODUCTS,

If you manufacture...distribute...or sell any one of the products mentioned below—or products like them—read this message about this new container with the

NO-DRIP LIP



POURS FREELY when you tip it . . . yet won't drip a drop when you're finished pouring.

*The Liquid Detergent Can
—another CANCO "first"!*

NOW AVAILABLE FOR:

AMMONIA...

SALAD OIL...

SYRUP... TURPENTINE...

LIQUID STARCH...

AUTO SPECIALTIES...

*AND HUNDREDS
OF OTHER
PRODUCTS!*

The nozzle is completely dripless—the first of its kind—a feature developed by Canco research. But that's only one of the many advantages this new can provides.

Its side-seam construction permits full decoration all the way around. It's quicker, easier, cheaper to fill than glass. And of course, it's lightweight . . . easy to handle . . . can't break.

If you have a product that's liquid, write and tell us about it. Chances are, some variation of this new dripless can will suit you better than your present container.

COME TO

CANCO

FIRST!

AMERICAN CAN COMPANY New York, Chicago, San Francisco

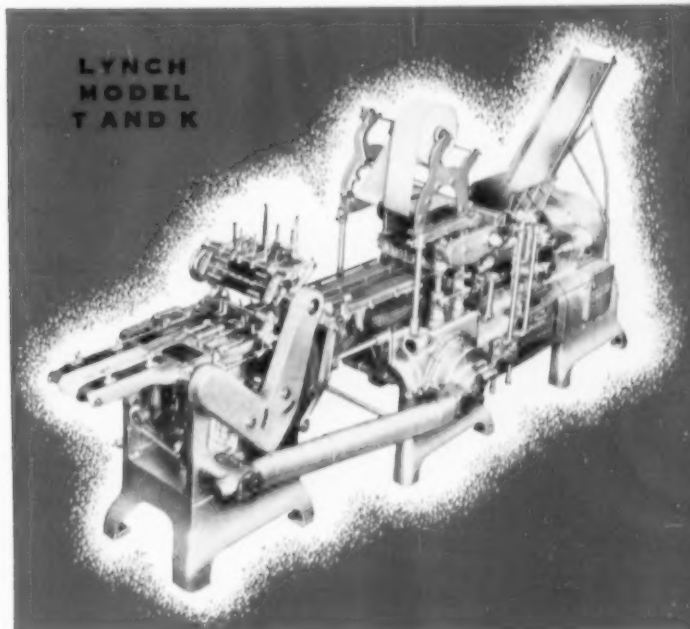
THESE FINE PRODUCTS,
AMONG THE NATION'S LEADERS,

DESERVE (AND GET!)

LYNCH PACKAGING

HERE'S

why



speed in operation . . .

Lynch T & K packaging machines, standard in the industry for many years, print and package an average of 3600 lbs. of butter an hour. In many print rooms this would mean over 7,000,000 lbs. per year on a one-shift basis — with an absolute minimum of down time. No other butter packaging equipment can offer the speed and related advantages of the Lynch T & K.

economy in production . . .

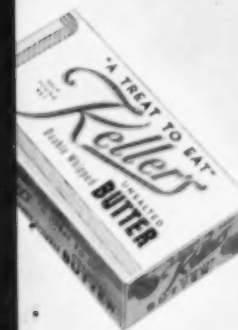
The fully automatic operation of the Lynch Model T & K in print forming, wrapping, cartoning and overwrapping minimizes labor and production costs, cuts waste and product loss. Evidence of the durability of the T & K is found in some of the first models manufactured — still in trouble-free operation after long years of day-after-day efficient production.

ANDERSON, INDIANA

Branches—New York • Toledo • Chicago • San Francisco
Los Angeles • Atlanta • Dallas • Toronto
Export Dept.: Anderson, Indiana

LYNCH
CORPORATION

PACKAGING MACHINES





ROUND SPECIALTY PAN—Ideal for warmable coffee cakes and casserole dishes, ice cream specialties and other frozen bakery products. Appropriate for the dinner table.



FRUIT PIE PANS—Stronger construction, smoother rims, variety of gauges of foil. Top-in, bottom ratios, vertical depth and other volumetric patterns to adjust pie conformation and scaling weight relationship. For fresh or frozen fruit pies.

Showpieces

for today's showcases



FOIL IS SPARKLING—catches the buyer's attention.

FOIL IS WARMABLE—preparation of convenience foods is quick and easy.

FOIL IS PROVEN—stars in the great self-service market.

Cochran rigid foil containers are practical packages that command attention, offer convenience and give production protection. There's Cochran equipment to fit every closure operation. Let us show you why foil is the answer for your packaging program.

Write Cochran Foil Company, Incorporated, Dept. E-1, 1430 South 13th Street, Louisville 10, Kentucky.



POT PIE PANS—Range of sizes to fit any plate-holder. Fully curled edge, dimensional stability, extra bottom strength. Out of the plate-holder onto belt without fail. Can be produced in any desired quantity.



SECTIONAL TRAY

Smooth formed construction, full height dividers. Smooth "no snag" rim fully curled. Standard frozen dinner size.



OBLONG PANS

Ideal for pre-cooked frozen specialties, chicken choplets, barbeques, cobblers and salads. Standard frozen food package sizes.



Visit us at the National Frozen Food Exposition,
Booth 141 — Belmont Plaza, New York City

TART PANS • DEEP PIE AND CASSEROLE CONTAINERS • PIE PLATES • ROUND SPECIALTY CONTAINERS • OBLONG AND SQUARE SPECIALTY CONTAINERS • SECTIONAL TRAY

Cochran FOIL COMPANY

Incorporated

FACILITIES AS FLEXIBLE AS FOIL ITSELF

• **your production men**

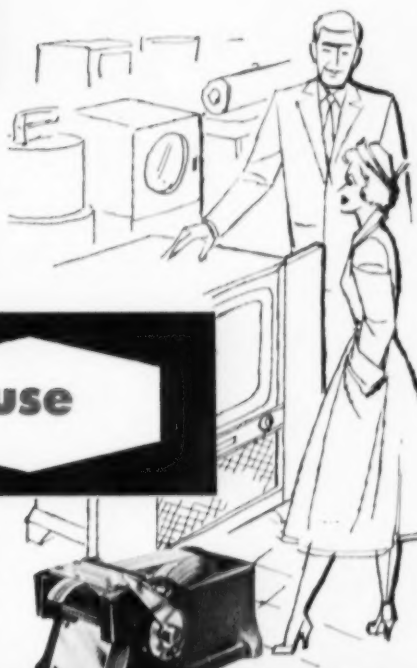
Production lines keep rolling — no delays for lengthy label preparation, spoilage, or poor adhesion. Labels go on fast . . . clean . . . easy — no water, no glue, no heat, no mess!



everybody's happy . . .

• **your dealers**

Pressure-sensitive labels stick tight on any hard, smooth surface. Regardless of heat, cold, or humidity, they identify your brand . . . tell your product story . . . help make sales.



when

you

use

• **your customers**

Buyers like these peel-off labels that won't "pop" or pucker . . . yet remove easily without soaking or scraping.

Special Roll Label Dispensers save time and money in every volume labeling application.

ROLL — DISPENSED

Pressure-Sensitive LABELS



WRITE TODAY for FREE TEST-IT-YOURSELF KIT

Contains a selection of pressure-sensitive samples for on-the-spot testing in your own plant.

Your own Roll Label Printer is a specialist who can design and produce roll-dispensed pressure-sensitive labels that sell on your product or package. Any size . . . any shape . . . on almost any stock. Consult him on any of your labeling problems. He will be happy to cooperate.

KLEEN-STIK PRODUCTS, INC.

7300 West Wilson Avenue • Chicago 31, Illinois

Pioneers in Pressure Sensitive for Advertising and Labeling

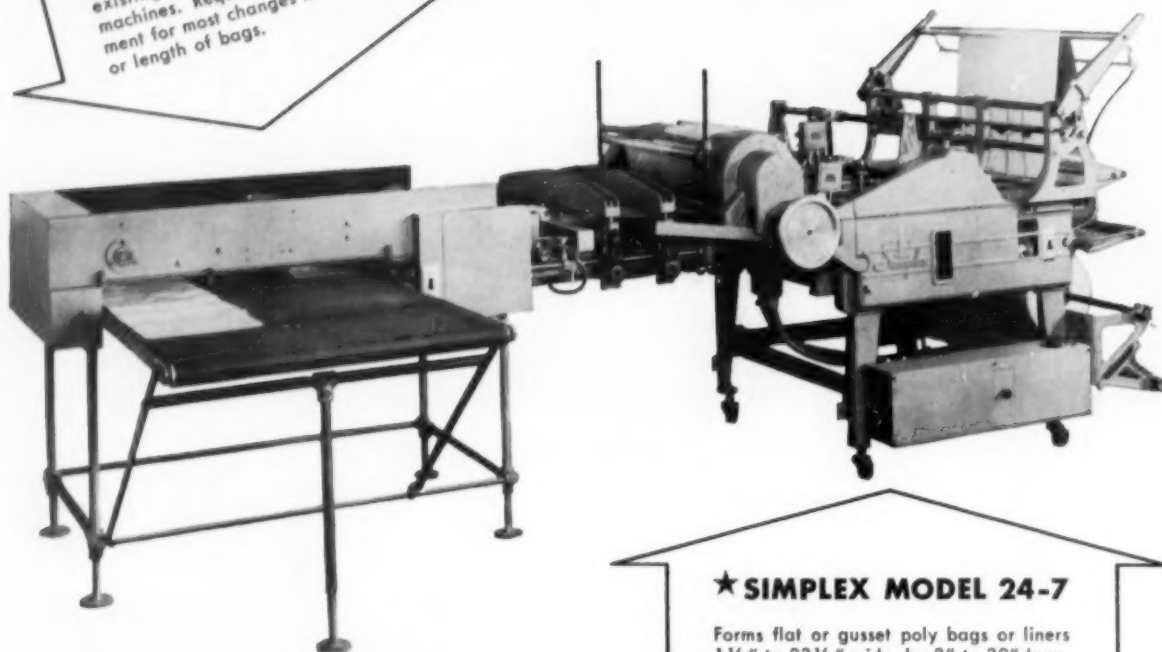
NEW AUTOMATIC POLY STACKER

ADDS COST-SAVING VERSATILITY

★ Automatic Stacker

Available for right or left delivery. Neatly stacks bags up to 60" in length in counts of 10, 25, or 50. Adaptable to existing Simplex Model 24-7 machines. Requires no adjustment for most changes in width or length of bags.

to LARGE *Simplex* Model 24-7 BAG MAKING MACHINES



Now for the first time, the large *Simplex* Model 24-7 offers vastly increased versatility, plus greater cost-saving economy with the addition of the New Automatic Stacker attachment. Polyethylene bags are under constant control of grippers from knife head to final sorted stack. A full range of bag sizes can be produced with minimum adjustment. Stacker permits a single operator to inspect and pack bags from more than one machine. Investigate the new 24-7 Automatic Stacker today. You'll find it pays its way.

★ SIMPLEX MODEL 24-7

Forms flat or gusset poly bags or liners 1½" to 23½" wide, by 3" to 30" long, at up to 55 bags/min. Single, double or triple lengths to 120" are possible with skip-seal attachment. Two or more bags can be made in parallel runs from tubing rolls. Exclusive "stop-and-seal" feature insures uniform tight center seal over the length of the film—eliminating pin holes and burnt spots.

Simplex Hole-Punch, Radius-Seal, and Electric Eye attachments add to versatile utility.

Simplex

SIMPLEX PACKAGING MACHINERY, INC.

534 23rd AVENUE, OAKLAND 6, CALIFORNIA
Foreign Sales: FMC Export Dept., P. O. Box 760, San Jose 6, Calif.
(Cable Address: FOODMACHINI)



SUBSIDIARY OF FOOD MACHINERY AND CHEMICAL CORPORATION

the new name to watch in KRAFT packaging—



... better products through cellulose chemistry

by OLIN MATHIESON

The name FROSTKRAFT is the newest "package" in high-strength kraft products — shipping containers, multi-wall sacks, grocery and specialty bags.

The Forest Products Division of Olin Mathieson Chemical Corporation has created a new combination of resources, facilities and know-how... united behind the product name—FROSTKRAFT! To the great Frost timber and lumber industries have been added the recently acquired kraft paper operations of the former Brown

Paper Mill Company, Brown Container Corporation, Brown Paper Industries, Inc., Krafco Container Corporation and Negley Bag and Paper Company.

Olin Mathieson brings to FROSTKRAFT many years of intensive research and leadership in cellulose chemistry... scientific packaging... basic industrial chemicals. This unique combination of resources and industrial skills is now being applied to the continued development of FROSTKRAFT paper products.

FOREST PRODUCTS DIVISION
WEST MONROE



OLIN MATHIESON CHEMICAL CORPORATION
LOUISIANA

NOBODY HAS AS MUCH EXPERIENCE AT MOLDING POLYETHYLENE AS

TUPPER!

The logical molder for you to consult regarding that product or package of yours which is to be made of polyethylene is Tupper. Tupper has done more than any other molder to make molded polyethylene a practical reality.

Aside from having designed, patented, and promoted successful seals, closures, and dispensers for polyethylene containers, the Tupper Corporation has vast experience in *every phase* of polyethylene packaging and polyethylene injection molding. This experience will be of major importance in improving your product, in reducing your costs, when Tupper goes to work for you.

Tupper's combination of experience, technical ingenuity, and the most modern equipment is at your service for the custom molding of your product in polyethylene. You can do no better than the best ... and the best at molding polyethylene is Tupper!

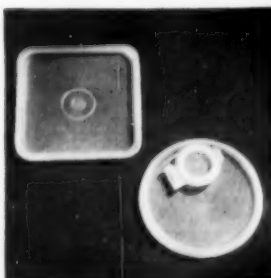
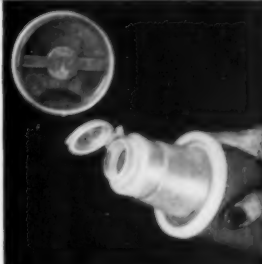
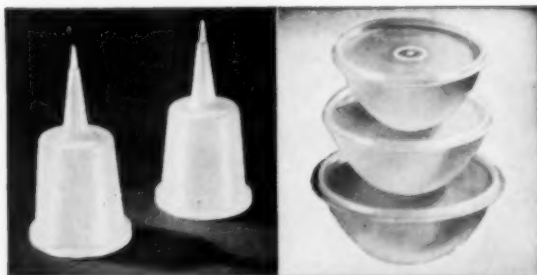
TUPPER!
TRADE MARK

TUPPER CORPORATION

Manufacturers of — CONSUMER, INDUSTRIAL,
PACKAGING AND SCIENTIFIC PRODUCTS

Factories, Laboratories and Sales Offices:
Farnumville, Mass., Orlando, Fla., L'Epiphanie, P.Q.
Showrooms: 225 Fifth Ave., N. Y. C.

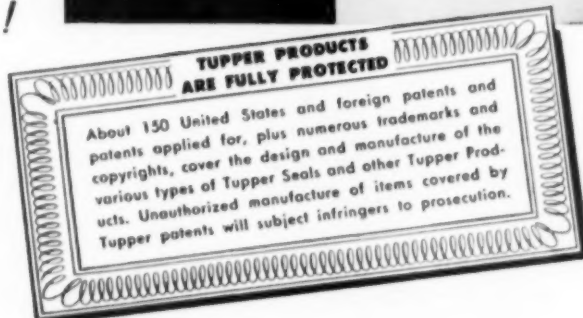
Address all communications to: Dept. MP-1



Tupper Seals are air and liquid-tight flexible covers. The famous Pour All and Por Top covers are designed for easy dispensing. They are made in sizes to fit all Tupperware containers.



When equipped with Tupper Seals, Tupper Canisters, Sauce Dishes, Wonder Bowls, Cereal Bowls and Funnels in various sizes are the most versatile reusable containers you have ever seen.



*Made with the skill
that assures protection*



This 16th Century helmet displays the craftsmanship of medieval armor-makers. Expert fitting and positioning permitted mobility and visibility, while intricate carving brought distinctive, attractive appearance. Studied design and careful construction assured maximum protection.

Jones & Laughlin Steel Containers provide dependable protection for your products. They are built of sturdy, high-quality J&L Steel Sheet. Careful manufacture assures accuracy in all fittings and closures. J&L containers have a

trim appearance which can be decorated attractively with colorful designs and illustrations by means of J&L's lithographic process.

Coatings and lacquers are evenly applied—both inside and outside. J&L pails and drums are chemically treated to keep all surfaces clean and dry.

Depend on J&L Steel Containers for the protection your products require.

Order them through plants in leading industrial centers. You will find J&L service prompt and efficient.



CONTAINER DIVISION

Jones & Laughlin
STEEL CORPORATION

405 LEXINGTON AVE.
NEW YORK 17, N. Y.



BARTELT

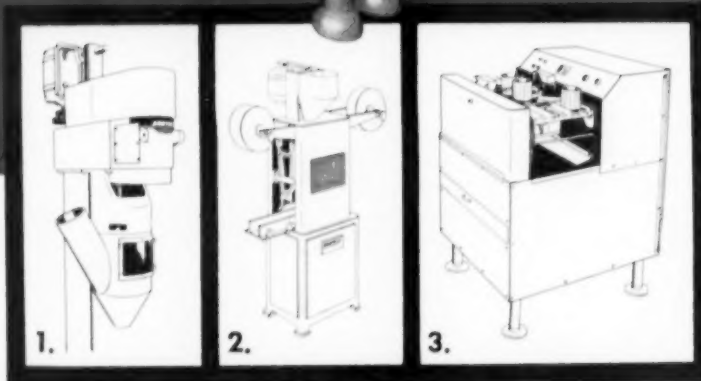
Fine Equipment for the Packaging Industry



The Bartelt Packaging Machine, now in use packaging many of the nations best known brands, was Bartelt's first introduction of machine tool precision to the packaging industry. This packager (1) makes a bag from a roll of paper, film, or foil; (2) fills the bag accurately; (3) heat seals safely. Now Bartelt has added a precision cartoner which sets up the carton, inserts the desired number of bags, and glues or tucks the ends of the carton.

Bartelt also is making additional equipment illustrated below.

All are fast, automatic, and designed for long years of operation and low maintenance. Let us help you speed your packaging production. Write today.



(1) Bartelt automatic filler. (2) New "small" packager.
(3) Accurate "Check-weigher"

BARTELT

ENGINEERING CO.

1900 HARRISON AVENUE
ROCKFORD, ILLINOIS

*"Machinery for
Creative Packaging"*

Package design your bottleneck?

LET MARYLAND GLASS
DESIGN A BLUE OR FLINT
GLASS CONTAINER FOR
YOUR EXCLUSIVE USE

Sure, we make bottles and jars. But, more important to you, we design them. Our creative staff has the experience, the skill, the imagination to help you successfully redesign your old package or develop a new one. We've proved this many times. Now we would like to prove to you that we can design a container that will sell your product. If you have a design problem, get in touch with us. No obligation, of course. Maryland Glass Corp., 2147-53 Wicomico St., Baltimore 30, Md.

PACK TO ATTRACT IN

**MARYLAND
GLASS** | BLUE OR FLINT
JARS AND BOTTLES

STOCK DESIGNS—a variety in blue or flint glass and a complete range of sizes is ready for immediate shipment.



This is TASTE EXCITEMENT!



NEW Staude "1000"

BRINGS VERSATILITY TO OHIO BOXBOARD GRAVURE DEPARTMENT

The Ohio Boxboard Co. plant at Rittman, Ohio, has installed a Five Color Staude "1000" Rotogravure Press, a Staude Butt Splicer and an in-line Mercury Die Cutter-Creaser. This combination, equipped with a new web tension control system, is the closest approach to automation in the industry.

Ohio Boxboard knows well the quality, speed and cost advantages of gravure. This new Staude installation with its larger cylinders and design for quick change, adds the big operating advantage of versatility. Frank Kulow, Gravure Supervisor, says of the new Staude, "We are very enthusiastic about the potential of the gravure process and are looking forward to top product quality, uniformity and production."

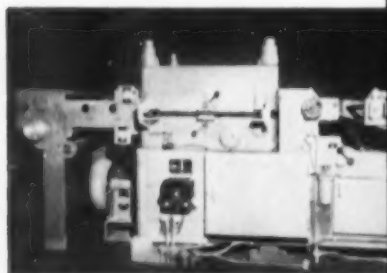
- ✓ Prints webs up to 45" wide with 23" to 46" circumference engraved cylinders—a production bonus of 20% to 25% on every impression.
- ✓ Continuous press operation achieved with Turn Over Roll Stand, Automatic Butt Splicer and Mercury Die Cutter-Creaser.
- ✓ Fast changeover of only 15 minutes per color—each color station is a complete rotogravure printing unit.
- ✓ New web tension system in electric drive assures accurate register.

Write for *Staude "1000" Bulletin*

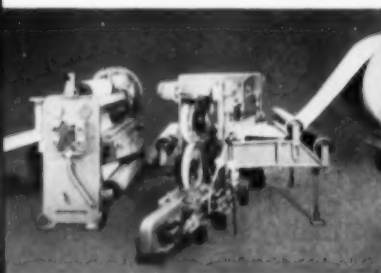
E. G. Staude MANUFACTURING CO., INC.

2675 UNIVERSITY AVENUE • ST. PAUL 14, MINNESOTA

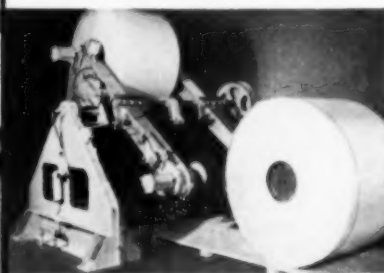
European: 33 Firs Drive, Cranford, Middlesex 7, England



In-line Mercury Die Cutter-Creaser's 200 strokes per minute allows continuous operation.



Butt Splicer automatically splices web of one roll to another without stopping the press.



Turn-Over Roll Stand brings all sizes of roll stock into position for uninterrupted splice.

This is TASTE EXCITEMENT!



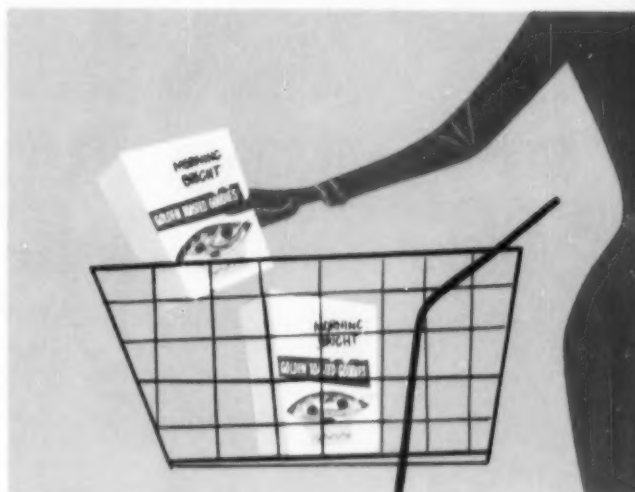
Stops the shopper



...pulls



...and pulls



...and sells!

it can sell more foods for you!

Taste Excitement is one of three basic elements that makes up a sales-boosting, scientific package design. When properly compounded, these design factors blend into a package that pours irresistible pressure on shoppers—pressure that can mean increased sales volume for you.

But modern package design is a science. To achieve a package that stands out and sells against all competition requires highly specialized knowledge and experience. Western Waxed Paper Division offers you this sales-proved package design service.



*Increased Sales...
by Design!*

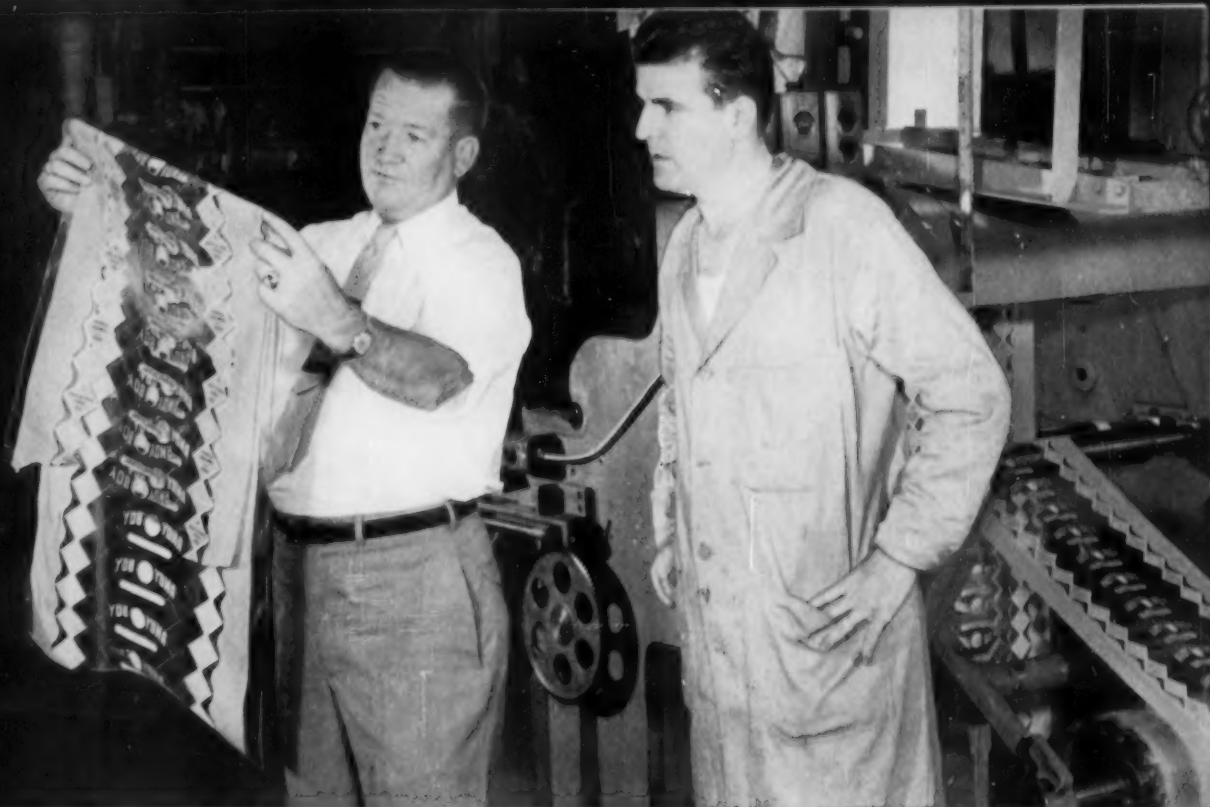
CROWN ZELLERBACH CORPORATION • WESTERN WAXED PAPER DIVISION

SAN LEANDRO AND LOS ANGELES, CALIFORNIA; N. PORTLAND, OREGON

SALES SERVICE OFFICES: Chicago, Dallas, Denver, New York City, Salt Lake City, Seattle, Spokane

WPD-C





New Flexographic Ink is X-TRA Opaque...Prints Snappier...Stays on Better

Check these other exclusive X-TRA features of BBD EXCELLOPAKE "400 X-TRA" INKS

X-TRA MILEAGE ... the X-TRA solids content of *white* "400 X-TRA" makes it go further per pound

X-TRA BLOCK and HUMIDITY RESISTANCE ... "400 X-TRA" will not block, ink to ink or ink to face, at temperatures to 130°F.

X-TRA HEAT RESISTANCE ... releases from heat-sealing elements at temperatures to 275°F.; resists smudging, sticking, smearing

X-TRA LOW-TEMPERATURE RESISTANCE ... withstands the cold and moist conditions of dry and wet refrigeration

X-TRA VERSATILITY ... may be used - without special solvents - on any type of cellophane, treated polyethylene, aluminum foil, glassine and specialty papers

Now, with BBD's newest flexographic ink - EXCELLOPAKE "400 X-TRA" - it's easy to produce beautiful printing on cellophane, polyethylene, foil and specialty papers alike.

Simply by using *white* EXCELLOPAKE "400 X-TRA", as a first-down or back-up color, you can get X-TRA snappy, X-TRA brilliant results every time. Because *white* "400 X-TRA" is especially formulated to meet a new standard of whiteness, its X-TRA opacity makes it an unbeatable foundation for either underlaid or overprinted colors, lends them X-TRA sparkle and contrast.

And the beauty of "400 X-TRA" lasts long after the job is printed. Because we've engineered X-TRA strong adhesion into it, it *stays on the stock* ... at room temperature and at both extremes of temperature ... even on anchor-coated cellophane and the heavier grades of moistureproof film that contain more plasticizer per square inch.

Smooth-running EXCELLOPAKE "400 X-TRA" has been used and re-used in many plants throughout the country. It has proved itself the one best ink for beautiful printing results, trouble-free press performance and freedom from bleeding, offsetting and blocking problems. We recommend a trial on the next job you run.

Get more information about EXCELLOPAKE "400 X-TRA" - in white and all colors - from your nearest BBD office or direct from Bensing Bros. and Deeney, 3301 Hunting Park Avenue, Philadelphia 29, Pa.





Care and feeding of packages...

It takes a lot of planning to get the perfect package for your product. You can't decide on the basis of container cost alone. You want to know the cost of the finished package. Some questions you want answered are:

How fast will my lines operate?
How much down time?
How much breakage?

When you get the answers they add up to specification of VISQUEEN film for lower cost packaging. More VISQUEEN film is sold than any other polyethylene. Here are some of the reasons:

VISQUEEN® "C"

is unmatched for ink adhesion. The ink stays on—it won't rub off!

VISQUEEN

cuts packaging costs as much as 50%—improves packaging.

VISQUEEN

has body, flexibility and uniformity—you can make, fill and close bags faster.

VISQUEEN

is unaffected by display lights, won't discolor or get brittle—is ageless!

We will be glad to send names of converters of VISQUEEN film serving your territory. Just clip coupon, attach to your letterhead, and mail.

VisQueen® film ... a product of
THE VISKING CORPORATION

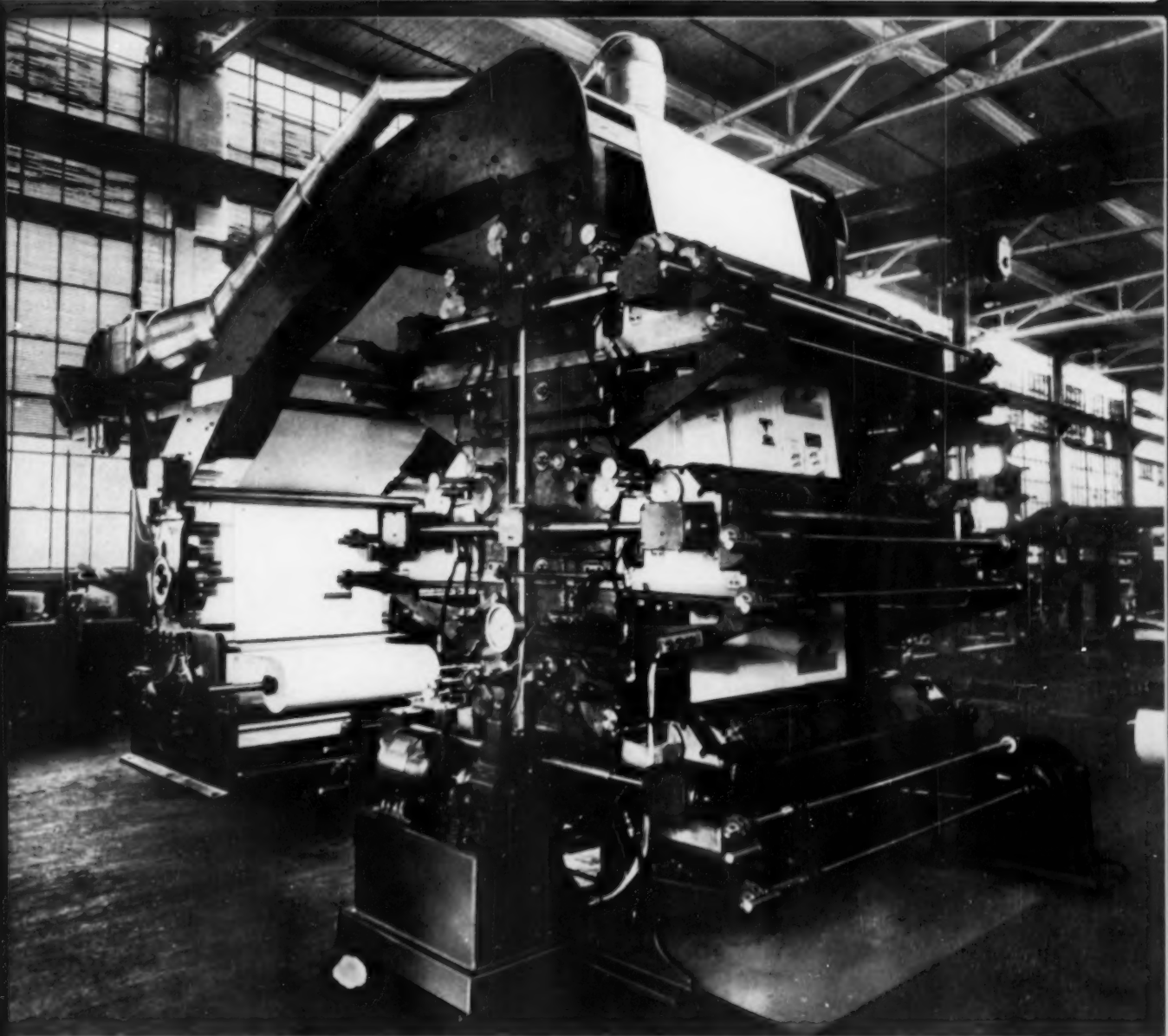
Plastics Division, P. O. Box H1-1410, Terre Haute, Indiana
In Canada: VISKING Limited • Lindsay, Ontario
In England: British VISQUEEN Limited • Stevenage

Name _____

Title _____

Products _____

Important! VISQUEEN film is all polyethylene, but not all polyethylene is VISQUEEN. Only VISQUEEN has the benefit of research and resources of The VISKING Corporation.



The Kidder Flexographic Press leads with many advanced features for fast, eye-catching, money-saving printing.

You get a hard-working business partner...

when a Kidder press starts rolling for you. In every detail of design, construction and performance, Kidder presses are proving their ability to deliver top-quality printing at lowest cost.

Throughout this Kidder Flexographic Press, for example, gears are precision cut, rollers are ground and balanced, and bearings are carefully fitted. In operation, single centralized control automatically engages and disengages all colors from one point, with plate

cylinders held rigidly in printing position under 150-pound hydraulic pressure. Advanced features include Kidder's positive web control, oversize dryer, centralized hydraulic control, rigid ink rollers and no-splash fountains.

Here's a press you can depend on for profitable production on every job — plus the kind of Flexographic printing that keeps your customers happy. For facts on how Kidder advantages can benefit your printing operations,

write to Kidder Press Company, Inc., Dover, New Hampshire.



Kidder

**Letterpress, Flexographic
and Gravure Presses
Slitters and Rewinders**



Finest

from every angle

Round and square face powder boxes

Dusting powder boxes in three diameters

Talcum powder boxes

Guest soap and sachet set-up boxes



Manufacturers of Fine Paper Boxes

E. N. Rowell Co. Inc.

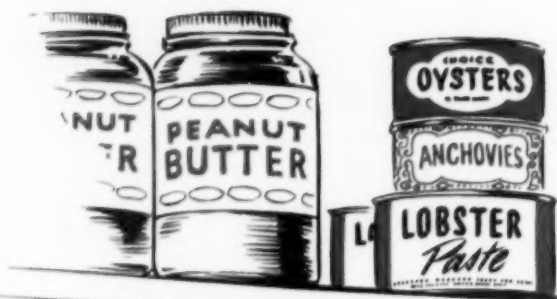
BATAVIA, NEW YORK

GET

Quicker

TURNOVER





with *Colorcast*
DRUM FINISHED

L A B E L



MADE ONLY BY THE CHAMPION PAPER AND FIBRE COMPANY • HAMILTON • OHIO







EYE ARRESTING!

Get quick turnover of *your* product by using labels and/or matching box wraps of Colorcast Drum Finished paper. Its clear, brilliant, fast to light colors offer you product identification for your line of quality products. Choose from these six standard colors: White, Christmas Red, Christmas Green, Canary Yellow, Patent Leather Black, and Royal Blue.

Colorcast provides the impact that appeals to today's value- and quality-conscious buyers.

Sample swatch available on request to our Advertising Department.

Colorcast is manufactured by
DRUM FINISHED

THE CHAMPION PAPER AND FIBRE COMPANY

General Office: HAMILTON, OHIO

CHAMPION

Colorcast

DRUM FINISHED

WHITE 058
YELLOW 056
BLUE 055
GREEN 054
RED 053
BLACK 052
CHOCOLATE 059
26" & 30" ROLLS & SHEETS

CHAMPION

Kromekote[®]

BOX WRAP

WHITE 105
WHITE 110
IVORY 116
IVORY 117
FROST PINK 836-25
26" & 30" ROLLS & SHEETS

AND

CHAMPION

Chamkote

WHITE EMBOST

B2133-25 ALLIGATOR
T3133-25 LEATHERETTE
T1133-25 WOVEN
G7133-25 CATARACT
6133-25 SKYTOGEN
26" & 30" ROLLS & SHEETS

ARE CARRIED IN STOCK BY

Matthias Paper Corporation

165 W. BERKS STREET, PHILADELPHIA 22, PA.



Multiple packaging is



WHEN HOUSEWARE SETS WERE BAGGED IN POLYETHYLENE

Housewares molded of colorful Monsanto polyethylene are so attractive they are usually displayed on counters and left to sell themselves.

But dramatic things happened when one manufacturer tried the idea of packaging sets of housewares in printed polyethylene film bags . . . "Our sales in these items rose a phenomenal 1200%," says John Harkless, Sales Manager of Rogers Plastic Corporation, West Warren, Mass.

"The soft transparency of the polyethylene film makes the merchandise inside easily visible and far more appealing to the impulse shopper. But, more important, we can now design our line for higher unit sales, which is what every

building multiple profits!

SALES SHOT UP A WHOPPING 1200 PER CENT

FILM...

store manager wants. In addition to providing handsome packages, the polyethylene bags give the customer more re-use benefits, since they are tasteless, odorless, flexible and durable."

This is how the Rogers housewares line, one of the most extensive in the industry, met the demands of super merchandising.

For other profit building ideas on how you can upgrade your product lines with Monsanto polyethylene molding and film resins, write to Monsanto Chemical Company, Plastics Division, Dept. PA-1, Springfield 2, Massachusetts.

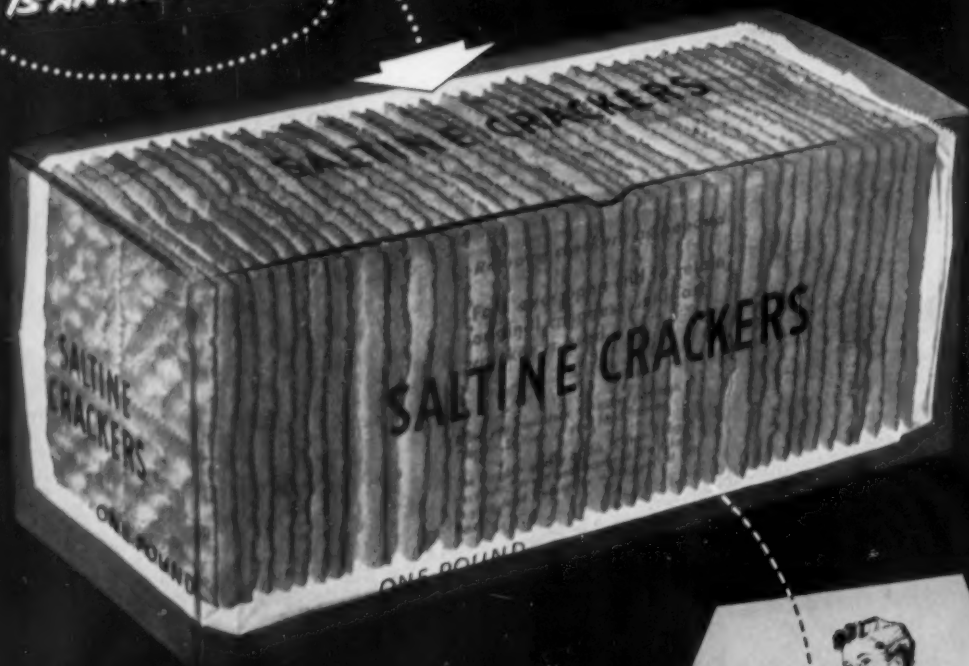
*Lustrex and Vucapak: Reg. U.S. Pat. Off.

*Talk to Monsanto about packaging
your products in*

MONSANTO POLYETHYLENE

*Monsanto also supplies Lustrex® styrene and
Vucapak® cellulose acetate materials to
fill your packaging needs.*

CRISPNESS
IS AN INSIDE JOB



X-Ray Photograph of actual cracker package



Ever wonder why some crackers taste fresher than others? The X-ray photograph above contains the answer. Inside this box of crackers is an inner bag of wax-laminated Rhinelander Glassine paper. This dense, almost impenetrable paper keeps moisture-vapor from robbing crackers of their crispness.



The inner bag has excellent dead-folding qualities . . . can be opened and positively re-closed many times, protecting cracker crispness to the very last one!

Glassine does this job economically—actually at a lower unit cost than most other protective packaging materials. If you have a product requiring a moistureproof package, let us show you how economically Rhinelander Glassine can work for you.

Our packaging engineers can recommend the right protective grade for you. When writing, please state application.



RHINELANDER PAPER

Rhinelander Paper Company • Rhinelander, Wisconsin

Great Ideas of Western Man . . . ONE OF A SERIES

Wm Penn

WILLIAM PENN *on freedom under government*

*It is certain that the most
natural and human government
is that of consent, for that
binds freely . . . when men hold
their liberty by true obedience
to rules of their own making.*

(Essay towards the Present and Future Peace of Europe, 1693)



Artist: Horace Paul

CONTAINER CORPORATION OF AMERICA





No Loose Ends

Labels, packaging, displays, brochures, calendars, booklets. Every part of your promotion program scientifically designed to work full-time at the point-of-sale.

Package designers with proven successes in many fields of marketing. Display experts with performance records for creating in-store salesmen that work for retailer and manufacturer as a team. A quality-control system that assures every phase of production to your satisfaction; includes bronzing, embossing, varnishing. A guarding of schedules no less than holy.

Is this how you want your next promotion program handled?
Consult Consolidated. It costs no more to put your whole program into the hands of SALES-AID ENGINEERS.

Representatives
throughout
the United States

CONSOLIDATED
Lithographing Corporation

CARLE PLACE, LONG ISLAND, N. Y.

These goods sell on sight . . .

in CELLOPHANE*



B.C.L.
in POLYTHENE

in ACETATE



BRITISH CELLOPHANE LIMITED

SPECIALISTS IN FLEXIBLE TRANSPARENT PACKAGING MATERIALS

Commercial Offices:- 12-13, CONDUIT STREET, LONDON, W.1, ENGLAND

*CELLOPHANE is the registered trade mark of British Cellophane Limited, in the following countries:
Great Britain, Australia, Ceylon, Cyprus, Denmark, Eire, Gibraltar, Hong Kong, Iceland, India, Jamaica,
New Zealand, Pakistan, Northern Rhodesia, Southern Rhodesia, Trinidad and Tobago, and the Union of S. Africa



West Carrollton
GENUINE VEGETABLE
Parchment

THREE-WAY PROTECTION!

Look at the protection you can give your hams and bacon with West Carrollton Parchment. Many combinations are available for your requirements—single—double or Tri-Wraps, with opaque, regular or gloss parchment for the outer wrapper. Write for information.



BUTTER WRAPPERS
BUTTER TUB LINERS
& CIRCLES
MILK & ICE CREAM
CAN TOPS
MEAT WRAPPERS
LARD CARTON LINERS

VEGETABLE SHORTENING
CARTON LINERS
LINERS FOR MEAT TINS
TRI-WRAP FOR
SMOKED MEATS
SLICED BACON WRAPPERS
TAMALE WRAPPERS

FISH FILLET WRAPPERS
& INSERTS
CELERY WRAPPERS
CHEESE WRAPPERS
POULTRY WRAPPERS
OLEOMARGARINE
WRAPPERS

BAKERY PAN LINERS
BUTTER BOX LINERS
PARCHMENTIZED KRAFT
PLAIN OR PEBBLED
RELEASE PARCHMENT
GREETING CARD
PARCHMENT

GLOSS-WRAP for smoked meats (single, double or tri-wrap) • AVENIZED • MYCOBAN • QUILON & DRY WAXED PARCHMENT
CLEAN FOOD PAPER—For Delicatessen and Grocery Stores, also Fish and Meat Markets.

WEST CARROLLTON PARCHMENT COMPANY • WEST CARROLLTON, OHIO

SALES OFFICES: New York, 99 Hudson St. • Chicago, 400 W. Madison St.

METAL PACKAGING by CLARK



Snug-fitting, Handsome Humidors Protect Product and Win Sales...

It's no secret — men who *know* fine pipe tobacco *prefer* to buy their favorite brand in distinctive lithographed metal containers, which *guarantee* the ripe perfection of the product enclosed within.

The nationally famous packages illustrated here, all of which are custom-manufactured by J. L. Clark, do much *more* than provide handsome lithographic decoration and instant brand identification. Sturdily built, all-metal containers are crush-proof, assuring complete product protection. Firm-fitting but easy-opening closures allow for quick and easy filling and all but eliminate the nuisance of spilling. To insure there is pleasure in every pipeful, Clark containers are specially tailored to seal in the moisture and delightful aromatic flavor of the world's finest tobaccos.

Lithographed or plain metal containers, styled by J. L. Clark, are available in a wide range of sizes and structures. Closures, in addition to the standard friction plug, slip cover, and screw cover, include the patented LEVALIFT device — a sliding lever-handle which guarantees easy opening . . . It's good sales sense that rare and costly tobaccos, prepared for discriminating pipe, cigar, or cigarette smokers, deserve *equally fine and distinctive* metal packaging. Next time you consider packaging, it will be well worth your time to consider lithographed metal containers, manufactured to your specifications by J. L. Clark. Your inquiry will receive the prompt attention of a Clark sales representative, who will gladly call at your convenience or send samples and full information by mail.

J. L. CLARK MANUFACTURING CO., ROCKFORD, ILLINOIS

Liberty Division Plant and Sales • Lancaster, Pa.

New York Sales Office • Chrysler Bldg. • N. Y. 17, N. Y.

J. L. CLARK

Lithographed Metal Containers





ANOTHER PACKAGING "NATURAL" FOR AVISCO* CELLOPHANE

Bundling saves handling, speeds sales

Suppose you manufacture a packaged retail item. En route from warehouse to distributor to retail shelf your product must be counted, handled, and rehandled often. Yet too many handlings waste time, often mar its appearance. Is there a remedy?

John H. Breck, Inc., found the answer by "bundling" six-in-one with strong, heavy-duty Avisco Cellophane. Protected and beautified, this compact multiple unit is easier to pack, ship and display.

And, with cellophane, products are identified instantly. You need no bundling wrapper label.

This is just one of hundreds of Avisco Cellophane packaging ideas that *move merchandise*. Perhaps Avisco Cellophane could help speed and simplify the sales and distribution of your product.

Just drop us a line or give us a call. American Viscose Corporation, Film Division, 1617 Pennsylvania Boulevard, Philadelphia 3.

AVISCO
CELLOPHANE

*Trademark of American Viscose Corporation

A black and white advertisement featuring a woman in a long, flowing dress holding a large, outlined letter 'K'. The background is a dense, textured pattern of dark and light areas. The text 'color is dynamic...by' is written vertically on the right side.

color is dynamic...by

Sinclair and Valentine Co.

PRINTING INKS FOR ALL PURPOSES





65

years of

progress...

*invested in
tomorrow!*

Sixty-five years have elapsed since Sinclair and Valentine produced and sold their first pound of printing ink. In the period that followed, S&V has been privileged to share with you in the challenging developments of the whole Graphic Arts industry. Countless inks have been conceived, perfected and put into commercial production by the Sinclair and Valentine organization. The same "know-how" that made all these advances possible, continues to be devoted to the development of new and better printing inks for all surfaces. Many of today's "problems" will become the "new inks" of tomorrow! Consistent improvement—better products—better ways of doing things—these are S&V's investments for your future!

Sinclair and Valentine Co.

Main office & factory: 611 West 129th St., New York 27, N. Y.

OVER 35 BRANCHES PROVIDE SERVICE FROM COAST TO COAST

Stock Plastic Bottles by Royal

BOSTON ROUNDS
1/4 oz. to 32 oz.



CYLINDER ROUNDS
1 oz. to 8 oz.



FLAT OVALS
1 oz. to 8 oz.



MODERN OVALS
4 oz. and 8 oz.



OBLONGS
4 oz. only



TAPERED ROUNDS
4 oz. and 5 oz.



MODIFIED BOSTON ROUNDS
8 oz. and 12 oz.



Complete facilities to produce private
mold designs at surprisingly low cost

More and more leading packagers
look to Prescott, Arizona for
Royal "Containers of Distinction"

Royal

MANUFACTURING COMPANY, INC., PRESCOTT, ARIZONA

Bottles from stock molds (1/4 ounce to 32 ounces) are stocked by these distributors.

LOS ANGELES
Berri-Ecklund
Associates
4726 Melrose Ave.

PATERSON, N. J.
Modern Decorating Co.
155 Oxford St.

MIAMI, FLA.
Magic City Bottle
& Supply Co.
1380 N.W. 23rd St.

CHICAGO
Berman Bros., Inc.
1501 S. Laflin St.

SAN FRANCISCO
Marketing Agents, Ltd.
207 Powell St.

MONTREAL
Browns Bottle &
Supplies, Inc.
1655 Des Carrières St.



Celanese* POLYETHYLENE *moves merchandise!*

Celanese *even gauge* Polyethylene is the film that gives your package precision uniformity and toughness . . . selling power transparency . . . and perfect surface for clear, sharp long-wearing printed messages. Specify Celanese Polyethylene for wraps, bags, and envelopes. Celanese Corporation of America, Plastics Division, Dept. 108-A, 290 Ferry Street, Newark 5, N. J. Canadian affiliate, Canadian Chemical Company, Limited, Montreal, Toronto and Vancouver.

*Reg. U.S. Pat. Off.

Celanese*
Packaging Films

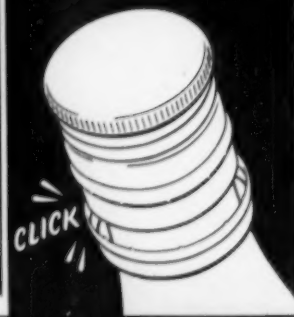
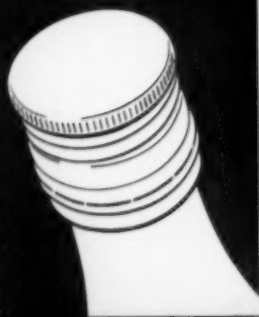
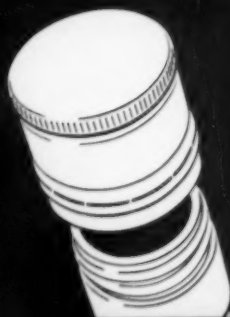
4726 Melrose Ave
1380 N.W. 23rd St
1055 Des Carrières St

SEALED UNTIL SOLD



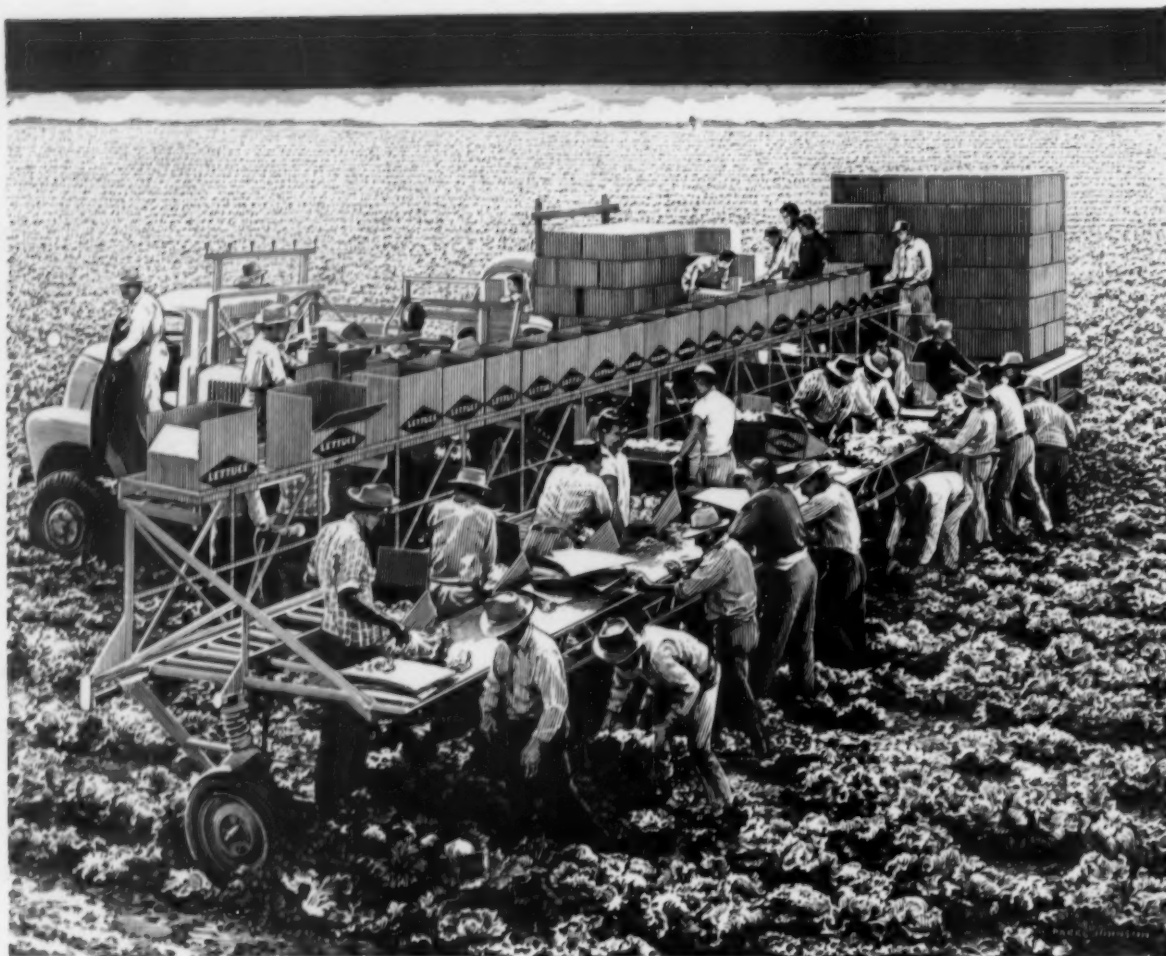
The PILFERPROOF
R.O. seal
THE MAKE-TO-MEASURE CLOSURE THAT
FITS INDIVIDUAL BOTTLES AND JARS

When liquid goes into a bottle which is capped by an R.O. Pilferproof Seal it is safe until it is sold. In transit or in store, tampering is discouraged. The moment the Pilferproof Seal is broken a 'tell-tale' ring drops down the neck of the bottle. Because of this security, as well as its attractive appearance and its made-to-measure fit, the R.O. is the perfect seal for bottles and jars.



METAL CLOSURES LTD · WEST BROMWICH · STAFFS

ENGLAND



KEEP PROFITS FROM WILTING



Gaylord "crop-designed" boxes protect field-packed lettuce so it can be vacuum-cooled and shipped to market in crisp, fresh, top-price condition. Shipping fresh fruit and produce is real proof of the protective ability of precision-made Gaylord containers.

These same safe-shipping qualities are important to you...whether your product is delicate as a ripe avocado or husky as a home appliance. With modern corrugated containers, you can use the most modern packing and shipping techniques...with maximum protection. For the newest ideas in packing, call your nearby Gaylord office.

CORRUGATED AND SOLID FIBRE BOXES • FOLDING CARTONS • KRAFT PAPER AND SPECIALTIES • KRAFT BAGS AND SACKS

GAYLORD CONTAINER CORPORATION • ST. LOUIS

A DIVISION OF CROWN ZELLERBACH CORPORATION

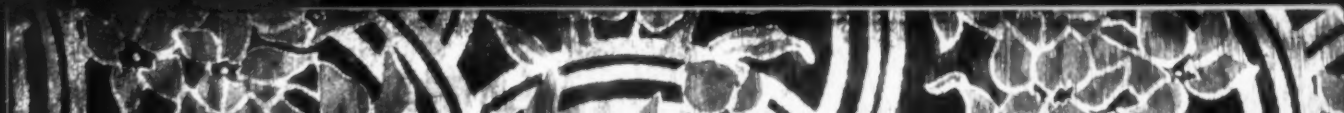
SALES OFFICES FROM COAST TO COAST ★ CONSULT YOUR LOCAL PHONE BOOK

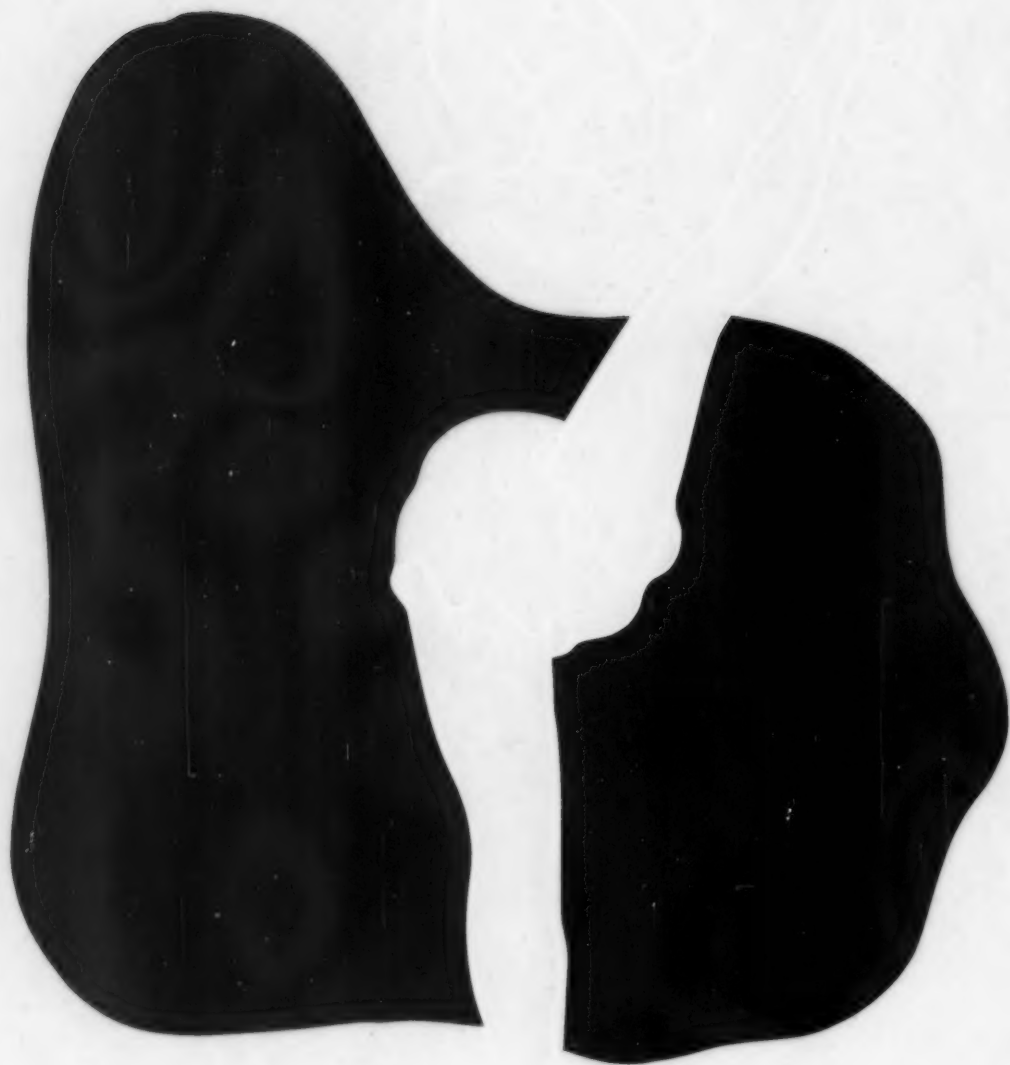


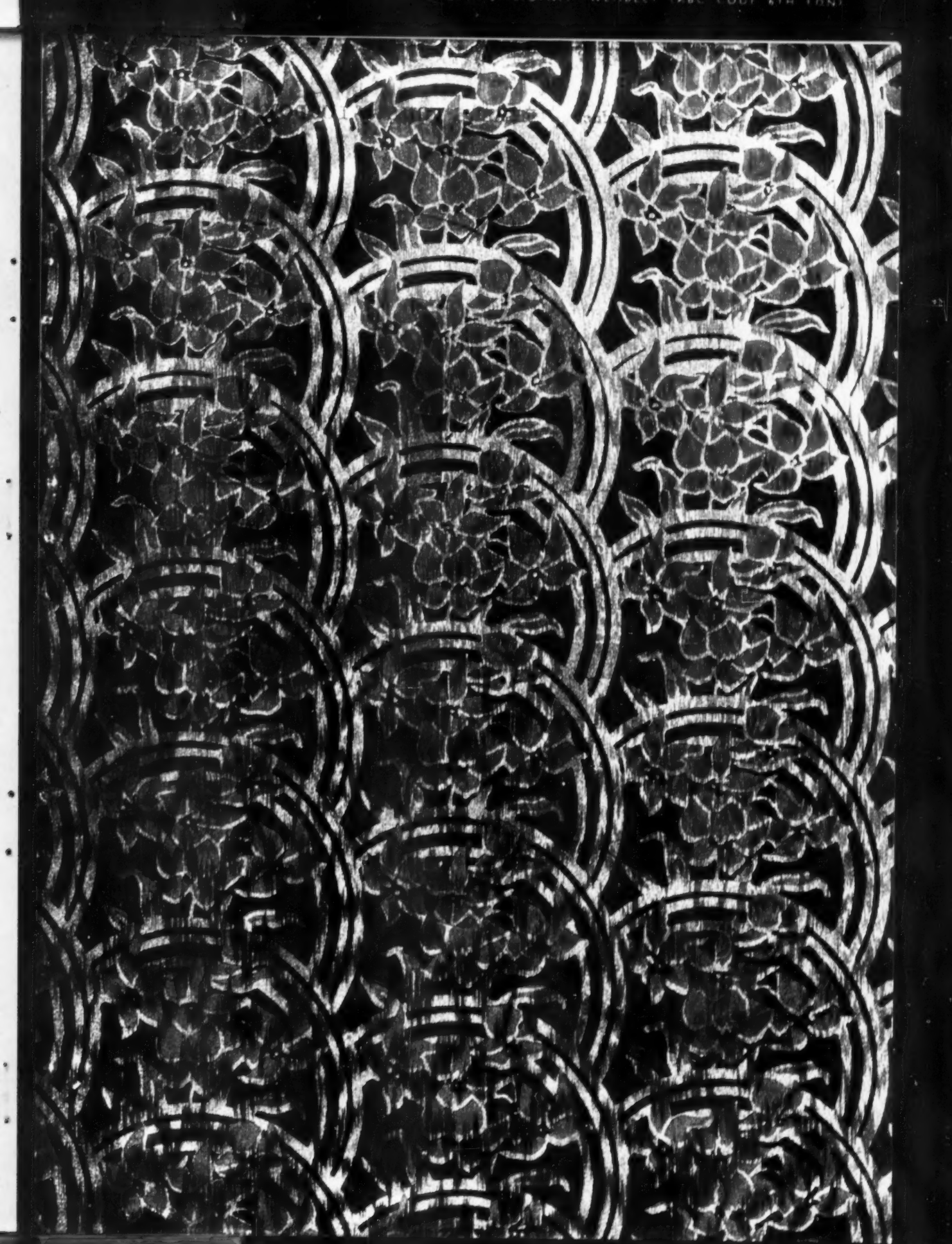
Eye-catching...

fisher's foils

FISHER'S FOILS LIMITED WEMBLEY MIDDLESEX ENGLAND
TELEPHONE WEMBLEY 6011 CABLES & GRAMS LIGNIT WEMBLEY (ABC CODE 6TH 10N)







★ *A Quality Product of FISHER'S FOILS of LONDON, ENGLAND.*

Throughout all stages of manufacture, every roll of foil made by Fisher's Foils of England is *automatically controlled* for gauge consistency by the latest beam gauge. Send today for wide range of samples or ask our representative to call.

**fisher's
foils**



Finding the Right Package

is NO PROBLEM . . .
if you CHOOSE . . .

CLEVELAND CONTAINERS

EFFICIENT . . . ECONOMICAL . . . ATTRACTIVE

1. PLAIN ALL-FIBRE CAN . . . Bottom firmly glued on, and top assembled loosely.
2. SLIP COVER CAN . . . Metal bottom seamed on, slip cover top of tin plate.
3. FRICTION PLUG CAN . . . Metal top ring with tight fitting metal lid; metal bottom.
4. TURN-SIFTER TOP CAN . . . Friction plug type bottom and metal revolving perforated top.
5. SCREW TOP CAN . . . Metal threaded ring with screw cap top; metal bottom.
6. METAL END TELESCOPE CASE . . . Three or two-piece construction. Available also with paper caps or ends curled and disced.
7. UNIT PACK CAN . . . Metal bottom seamed on, metal top shipped separately for seaming on by packer. Civilian and military uses.
8. CONVOLUTE LABELED CAN . . . Available in round, square or oblong shapes.

LINERS . . . moisture and grease resistant and anti-corrosive liners can be provided for additional protection.

LABELS . . . strip labels, pre-printed wrappers, direct printing, or plain color wraps.



Write

The Cleveland Container plant nearest you for a copy of our new PACKAGING folder.

PLANTS
AND
SALES OFFICES:
CLEVELAND
DETROIT
CHICAGO
MILWAUKEE
LOS ANGELES
PLYMOUTH, WIS.
JACKSONVILLE, N. J.
GREENSBORO, N. C.

ABRASIVE
DIVISION
CLEVELAND

THE CLEVELAND CONTAINER COMPANY

6201 BARDERTON AVE., CLEVELAND 2, OHIO

• ALL-FIBRE CANS • COMBINATION METAL
AND PAPER CANS • SPIRALLY WOUND
TUBES AND CORES FOR ALL PURPOSES

CLEVELAND CONTAINER CANADA, LTD.

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TORONTO AND PRESCOTT, ONT.

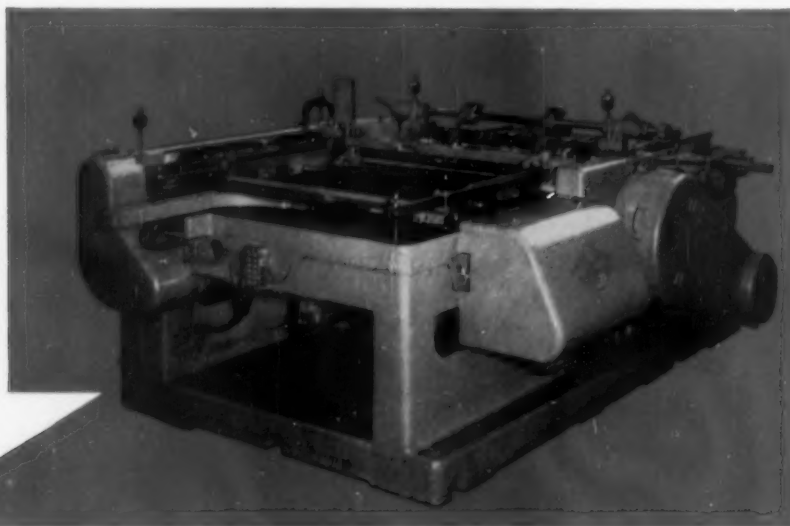
Sales Office:
MONTREAL

SALES OFFICES:
NEW YORK CITY
WASHINGTON, D. C.
BOSTON, N. Y.
WEST HARTFORD,
CONN.



*If you want lower cost body blanks,
join the swing to this modern*

HAMILTON 401 DUPLEX SLITTER



Here's one of the "hottest" new machines in Hamilton's complete line of modern, high-speed can-making machinery. And we're not a bit surprised that it has been such a "smash-hit" . . . • The big demand for our 401 Duplex Gang Trimmer and Slitter confirms our belief that a faster, better slitter is needed to permit increased can production. • This Hamilton 401 Slitter is so very advanced that it has made obsolete other slitters as new as five years old. Here are four specific reasons why it'll pay you to switch to our modern 401:

1. Its *streamlined*, simplified design provides maximum accessibility and easy adjustments.
2. *Sturdier*, more rigid construction means far less downtime. Both units are mounted solidly on a massive, heavily reinforced base to prevent distortion and misalignment.
3. It's about 40% *faster* than other "new" slitters and easily meets the need for higher production rates.
4. *Greater accuracy* is assured by its ruggedness and precise gauging. It exactly duplicates litho press gauges. It'll cut your rejects and improve your product quality.

For further facts about the 401 Slitter or other machines in Hamilton's complete line of equipment required for making all kinds of cans, please write to:

Hamilton Division, Hamilton, Ohio



BALDWIN-LIMA-HAMILTON



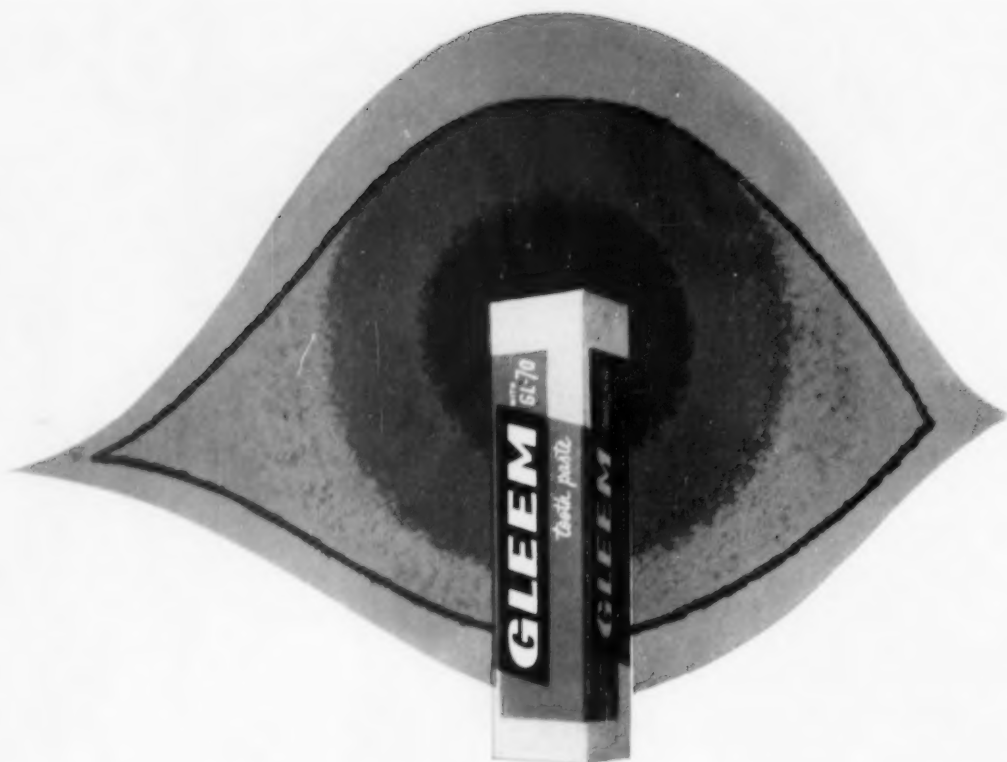
think of **Kaiser Aluminum Foil**

1. Won't absorb liquids or oils
2. Positive vapor barrier
3. Clean and non-toxic
4. Blocks heat and light rays
5. Imparts no taste or odor
6. Bars contaminants

Leading converters rely on Kaiser Aluminum as a major supplier because we are an integrated operation, producing foil of *unsurpassed quality* in a wide range of specifications.

For names of converters eager to tackle your packaging problem, contact the Kaiser Aluminum sales office listed in your telephone directory. Kaiser Aluminum & Chemical Sales, Inc. *General Sales Office*, Palmolive Bldg., Chicago 11, Illinois; *Executive Office*, Kaiser Bldg., Oakland 12, California.

P. S. And remember—Kaiser Aluminum Foil is unmatched for eye-appeal . . . sales appeal!



The all-important moment!

The fleeting moment when your product is selected—or passed up—is all-important. If it is packaged right—if it has eye-appeal, and creates desire, the sale is made. If it does not have all these qualities, the sale goes to your competitor!

Are you *completely* satisfied with your

present carton? Gardner can help you as we have helped so many manufacturers—large, medium, and small. There is a Gardner representative near you. He is a packaging specialist and is backed by an organization with over half a century's experience in creating and producing sales-making cartons. Why not write?



Many of America's greatest products go to market in "Cartons by Gardner"

GENERAL OFFICES: Middletown, Ohio—PLANTS: Middletown, Ohio; Lockland (Cincinnati), Ohio
SALES OFFICES in Chicago, Cleveland, New York, Philadelphia, Pittsburgh, St. Louis, Greensboro, N. C.

THE GARDNER BOARD AND CARTON CO.



Manufacturers of Folding Cartons and Boxboards



FROM THE GARDNER GALLERY OF FAMOUS AMERICAN PACKAGES

NASHUA PRINTED PACKAGING

SELLS MORE BREAD



Printing craftsmen, examining these bread wraps, would speak of the close register printing and fine color reproduction of the package designs, printed on cellophane and waxed paper by Nashua.

Merchandising experts would talk in terms of the shopper appeal of Nashua's precision printing . . . its easier brand identification and sales impact in display.

Nashua customers — and they include many of the leading names in the baking industry, like Loblaw Inc., Bakery Division, Buffalo, N. Y. — are more apt to say simply, "Nashua Printed Packaging has boosted our bread sales."

What more can you ask? Ask to have a Nashua representative call and show you the "Power of the Package." Write Nashua Corporation, Dept. BW-8, 44 Franklin Street, Nashua, N. H. Sales offices in New York, Philadelphia, Chicago, San Francisco, and Peterborough, Ontario.

NASHUA
Corporation



40 YEARS
OF CREATIVE PACKAGING



All-out merchandising is today's answer to the challenge of record-smashing output. Exciting neighborhood event is the opening of a de luxe supermarket, where shopping baskets will be filled with assembly-line rapidity by self-selling packages filled with a wonderful variety of improved and more convenient products.

Full steam ahead!

*Packaging's role in our record-smashing, rising economy
was never clearer and never were there so many
'plus' package features to help marketing men meet the goal*

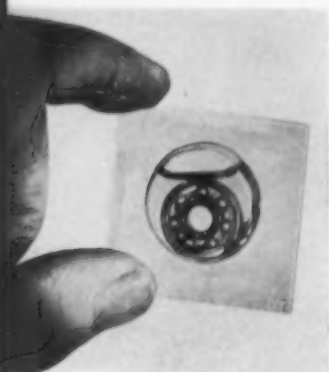
The important question facing packaging management in 1956 will be not how much merchandise can be produced, but *how much can be sold and how can it be sold?* This is indeed the question of our times; this is an era of all-out packaging, marketing, merchandising.

The mercury at this year-end is at new heights on the business barometer. The gross national product is close to the \$400 billion mark. Personal income amounts to \$300 billion. Production capacity has

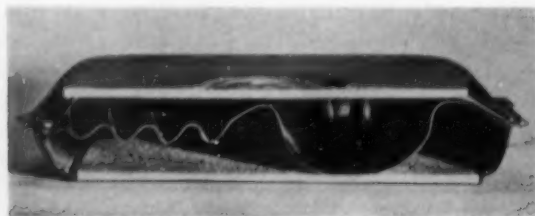
been expanding significantly in many lines. Research programs, now reaching an age of productivity, are ready to release a flood of new and improved products.

The clearest conclusion is that management will intensify its effort to bridge the gaps that exist between pushbutton production and pushbutton living. For, if automation is the production-man's darling, then the marketer's newest delight is the consumer who wants "automation" in shopping, homemaking,

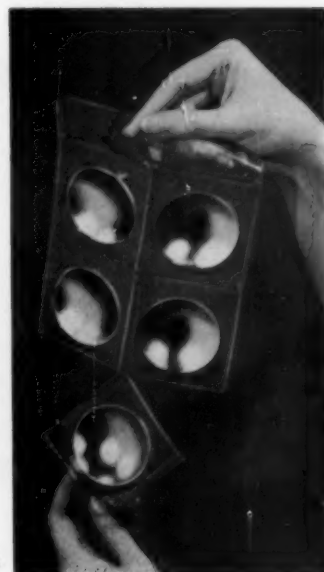
Formed plastic sheet packages offer many new opportunities



Bearing sealed in oil



Polyvinyl-paperboard combination



All-plastic skin pack

hobbying and recreation. The merchandiser doesn't use the term automation in reference to distribution; instead, he calls it self service. The shopper calls it "convenience." Whatever the term, one thing you can be sure of—that a package is involved. You don't have self service without self-selling packages and you don't have convenience products without convenience packages.

It was this basic motivation behind many important packaging developments in 1955 and it will still be the big influence in 1956. So many packaging developments are being pushed forward out of the research laboratories and being pulled ahead by the demands of marketing that packaging has become more than ever a very complex activity, demanding attention at the highest management level.

For example, it is becoming a matter of utmost concern to the detergent manufacturer whether he will package his product in a box, bottle or a can. And while he is debating this question, he will do well to keep his eye open for the advent of the first detergent in a plastic container.

The soft-drink bottler, engrossed with the problem of bottles versus cans and the question of jumbo sizes, may find it imperative to consider the carbonated beverage tablet packed in a foil strip pack, recently introduced on the West Coast. The cigarette manufacturer, whose fortunes looked so rosy up to a couple of years ago, now finds design and package form as important as any problem he has to face.

The push of plastics

Perhaps the outstanding single trend in the field of packaging is the push of plastics into a new for-

ward position from which they can challenge seriously the traditional materials for mass-distributed throw-away packages. Certainly vacuum and pressure-forming techniques are bringing the so-called skin pack and contour package to the front (March, p. 79).¹ Typical of the sales results achieved with a formed sheet-plastic package is the 1,100% sales increase that Schnefel Bros. Corp. reports after adopting a blister package for the La Cross line of manicuring instruments (June, p. 104). Other trail-blazing formed-sheet packages of recent months are:

- ▶ The first vacuum-formed polyethylene food container (March, p. 106).

- ▶ A vinyl container for glazed fruit (July, p. 32).

- ▶ A formed combination polyvinyl-paperboard container for cutlery, with pin-type hinge and formed-in metallized butyrate emblem (Nov., p. 120).

- ▶ The first all-plastic skin-pack package for hardware (Dec., p. 98).

There are sufficient new directions in the above-mentioned innovations to keep many a packaging-development department busy for some time to come. In addition, other developments are on their way and due in 1956: lids and food containers formed from low-cost oriented polystyrene sheet; low-cost throw-away transparent plastic cartons.

Among the plastic films, polyethylene will continue in the forefront, with steadily increasing volume. It now, for the first time, costs less than cellophane. An estimated 80 million pounds of polyethylene film and sheet were used for packaging applications last year. One prediction is that this

¹References in parentheses are to 1955 issues of MODERN PACKAGING and page numbers where additional details will be found.

figure will reach 200 million pounds by 1960. But the really important news about polyethylene film is the ever-increasing range of types, with the result that polyethylene is beginning to rival cellophane in the number of special packaging types that can be specified. Work is being done to increase the clarity of polyethylene and to improve its receptivity of printing and adhesives. Experimental work is also under way in the use of polyethylene as a supporting web for coatings of vinyl, saran and other films.

The first successful packaging applications of polyester (Mylar) film—especially as a film for window packages—(July, p. 98) give promise of longer shelf life and fewer returns for products that can benefit from visibility packaging. This film, with superb tensile strength, will hold sharp metal objects and, therefore, can be important in industrial packaging. Look for coated or laminated combinations of polyester and other packaging films that will offer exceptional strength and barrier properties.

Improvements in polyethylene

Lined polyethylene tubes and bottles are just beginning to appear in commercial applications. Esso is introducing a tube of industrial grease packaged in a vinyl-lined polyethylene tube. One of the biggest soap companies is test marketing a liquid detergent in a polyethylene squeeze can that has metal ends. Lined polyethylene, whether in tubes or bottles, is going to permit the packager to consider them for a significant new range of products, including tooth paste, shaving cream and foods.

Low-pressure polyethylene, which has already been much in the news², will still be in very limited production during most of 1956, but the first packages employing this material may make their appearance soon.

Advantageous cushioning properties are being afforded by foamed plastics (Feb., p. 107). Foamed polystyrene and vinyl have already begun to take hold as materials for protective packaging. Alka-Seltzer, for example, has replaced cotton wads in vials with a foamed polystyrene plug (July, p. 81). A brand new type of rigid plastic container, light as a cork yet strong, is produced from a polystyrene material that is foamed in the mold. This type of package has been successfully adapted for fishing reels and also as a re-use gift container for nuts (Sept., p. 117). Foamed polyurethanes and possibly foamed polyethylene may have potential value in packaging.

A truly significant 1955 development relating to plasticizers and their use as a component in food

²See "Polyethylene Grabs the Spotlight," *Modern Plastics*, Sept., 1955, p. 85, and Oct., 1955, p. 100.

PHOTO COURTESY PLAX CORP.



Demonstration lining in untreated polyethylene bottle is removable for testing. For production, liners formulated for good barrier properties are permanently bonded to treated bottles.

packaging was the publication of an article written for *MODERN PACKAGING* by Dr. A. J. Lehman of the Food & Drug Administration that spelled out in the most conclusive terms just what is and what isn't acceptable (Jan., p. 115).

'Something extra'

Currently there is such a tremendous demand for packages that do "something extra" for the processor, retailer, customer or all three that soon one of the greatest novelties in the packaging world may be a package that is just a package.

The aerosol, or pressurized, package is one of the best examples of a container that offers something extra—and that something is a large measure of

Jumbo sizes meet new consumer needs and reach new markets. All packagers, especially the beverage people, are studying this question.



convenience. The developments in the aerosol field are so numerous and important that packagers in all fields can well afford to institute a continuing study of the pressure-package potentials (April, p. 127).

One of the striking recent advances in the aerosol field is the design of aerosol packages for colognes and perfumes that rival the traditional cosmetic containers in beauty and aesthetic appeal. Both the vinyl-coated glass and all-glass container dominate in this field, but a melamine all-plastic aerosol container has just appeared on cosmetic counters (Nov., p. 98) and development work with other plastic aerosol containers, including nylon, phenolic and lined polyethylene, may offer packages the final link in a new approach to packaging and marketing success.

The little package extra is important because this type of plus-package fits into the whole new frontier of designing products so that as much work of preparation and use as possible will be done by the manufacturer or processor, rather than in the home. This is an important field for exploitation because the design of many so-called modern items is still under the influence of traditions that go back to the age of homespun. Flour is an example, for it requires lots of work in measuring, mixing, beating, pouring into a pan, baking and clean-up. On the other hand, cake mix packaged in a bake-and-serve container is designed for a closer approach to ultimate use.

Other examples are meat pies and TV dinners. This type of product and package is designed to remove as much work of preparation from the product as possible. There will be more of these prod-

uct-package combinations for the very good reason that they save time and effort, are basically self selling and are intimately connected with a dynamic, continuously open-ended economy.

Recent examples of package innovations that foreshadow the new age of product-package containers designed for ultimate-use convenience are:

- ▶ The metal tube that dispenses a triangular-shaped ribbon of putty (Nov., p. 109).
- ▶ The ball-point dispenser for under-arm deodorant (Jan., p. 80) and for glue (April, p. 164).
- ▶ The cleanser can that has the holes pre-punched and covered with a strip of pressure-sensitive tape, applied automatically (Dec., p. 114).

Other 1955 packages that carry out the same basic idea of ultimate convenience include:

- ▶ The cellulose shrink-type seal that has its own built-in tear strip.
- ▶ The two-compartment vial used to keep two components separated, yet permits mixing in the bottle at time of administration (April, p. 137).
- ▶ The strip package of resistors sealed in individual pockets on a reel of pressure-sensitive tape and fed, like machine-gun bullets, automatically into an assembly line producing electronic circuits (Aug., p. 100).

A similar package is the reel-fed dispensing package devised by Stewart-Warner for Alemite grease fittings (March, p. 89). The entire field of industrial packaging is alive with similar opportunities and challenges to package for efficient end use (Sept., p. 101.)

Something extra in packaging is not confined to the end user. The retailer likes and appreciates the

New developments like these make packages ever more practical and efficient

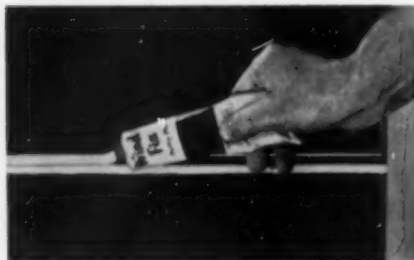
PHOTO COURTESY BRADLEY CONTAINER CORP.



Internally coated polyethylene tube for ointment

Throw-away polyethylene bag for cream

Metal tube dispensing triangular ribbon of putty





Research and imagination bring new packaging concepts, such as these aluminum containers for motor oils, now being test marketed to determine if they can compete with steel cans.

package that works for him: the pre-packed deals, shipping cartons with tear strips, shelf-extender display, carry cartons, carded merchandise on racks and other space savers (Nov. p. 93). The trend to more extensive use of transparent film as a wrap for bundling packages is a step in the right direction, for it helps the retailer with his stock selection and inventory problems (July, p. 75).

Something extra in packaging goes all the way back to the product manufacturer and sometimes even to the package supplier. The new lug-type vacuum closure designed to answer the housewife's desire for an easier-opening closure also lends itself to application by high-speed machinery (June, p. 95).

New strategy for sales

Among the highlights in packaged-goods merchandising are:

- ▶ Full self service into the 5 & 10 (Oct., p. 97).
- ▶ The coin-in-slot selling trend (May, p. 71).
- ▶ All-out interest on the part of top management in package design.

Self-service and coin-machine trends, of course, are logical extensions of important movements that have been going on for some time, but recent developments involving package redesign indicate that top management is breaking new ground. Certainly the thinking, planning and research approach that went into the development of the Marlboro package and, later, of the Philip Morris cigarette package (Dec., p. 83) represent a firming and maturing of the packaging strategy found necessary in today's marketing.

Evidence of the use of packaging as a strategic

weapon in dynamic merchandising will be found in numerous innovations that appeared last year. Hiram Walker's introduction of gift-wrapped liquor—labeling and mandatory information appearing on a removable transparent outer wrap—is a bold strategy in the face of the overwhelming and successful trend to gift decanters (Oct., p. 110).

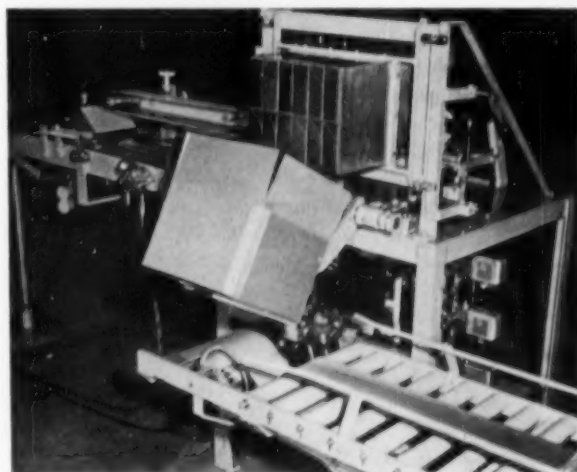
Other striking examples of packaging strategy include:

- ▶ The dressing-up of bar soaps in foil (Aug., p. 74).
- ▶ The Ohio Match Co.'s colorful match boxes (Sept., p. 118).
- ▶ Sunsweet's abandonment of a famous package for one with even more impact, color and identity printed with new rotogravure equipment (Feb., p. 100).
- ▶ Sear's, Roebuck's introduction of wet paint samples packaged in transparent pouches (Dec., p. 95).
- ▶ Dromedary's startling duplex cake-mix package abounding in firsts, including the first foil wrap on a cake mix (Sept., p. 134).
- ▶ The Galva Creamery Co.'s use of a polyethylene bag for shipping 10 lbs. of cream (Nov., p. 110).
- ▶ The McAllister Dairy Farm Stores' use of a wax dip coat for fresh frozen meats (Nov., p. 116).

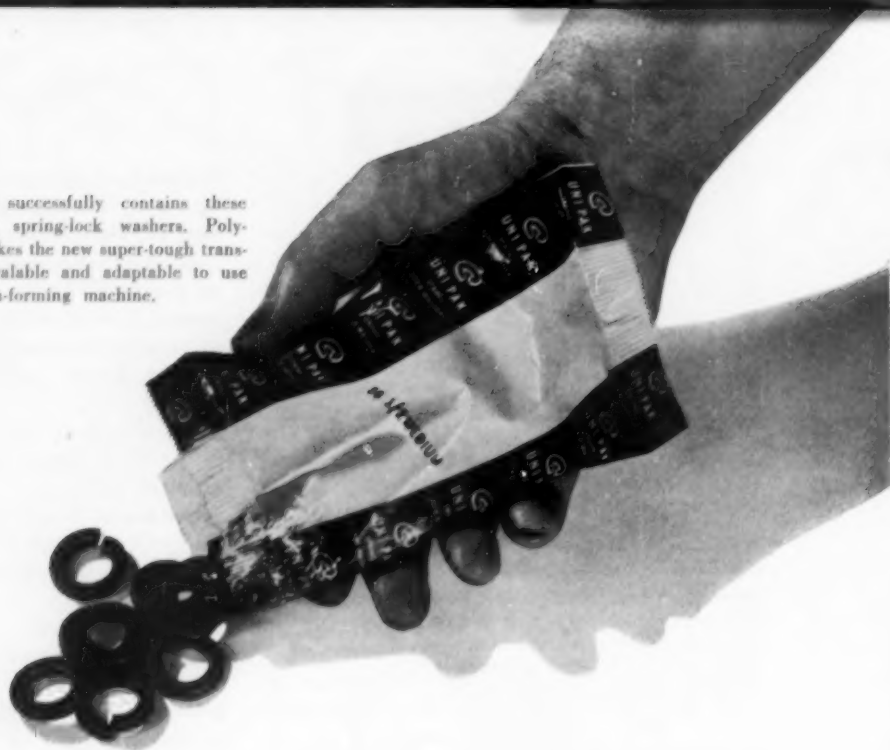
It is being predicted that fresh frozen cut red meats—steaks, chops, etc.—will be one of the next big areas of conquest for packaged-goods merchandising. Swift & Co. is exploring this largely unclaimed market with a line of 16 products strikingly packaged in folding cartons that are wrapped in heat-sealed, foil-laminated wraps. Brand identifica-

[Continued on page 214]

Important links in mechanizing packaging lines are new machines like this case packer that successfully handles bulging frozen-food cartons.



Polyester film successfully contains these sharp-pointed steel spring-lock washers. Polyethylene coating makes the new super-tough transparent film heat sealable and adaptable to use on automatic pouch-forming machine.



Polyester-film pouches

*Polyethylene coating makes possible the first use
of super-strength film in automatic machine
that weighs and fills sharp-pointed industrial washers*

Philadelphia Steel & Wire Corp.'s new pouch-type "Uni Pak" for spring-lock washers accounts for three important packaging "firsts":

- ▶ It represents the first use in automatic high-speed packaging of the new polyester-film material. In this use the polyester film is coated with polyethylene so that it can be readily heat sealed.
- ▶ It marks the first use of a newly introduced net-weight scale attachment on one of the most familiar automatic pouch forming and filling machines.
- ▶ It is one of the first uses of transparent unit packaging for this kind of industrial product.

The first of these innovations, of course, is the most important. The introduction of polyester film (Mylar®), with its list of impressive properties, including a tensile strength one-third that of steel, has been one of the packaging highlights of recent months.† But the difficulty of heat sealing this remarkable film on conventional equipment has been

one of the things that has kept it from being used up till now on high-speed automatic equipment.

This new polyethylene-coated polyester film, however, seems to open up a host of interesting new possibilities. Now, for the first time, transparent, automatically heat-sealed polyester-film packages of the familiar pouch type are possible. And the coated film can be easily handled on this standard package-making machine without the troublesome static pick-up encountered with unsupported polyester film.

The coated film used by Philadelphia Steel & Wire is of 3-mil gauge and consists of a layer of 1-mil polyester reverse printed in black and white and extrusion coated with a 2-mil thickness of polyethylene. The polyethylene coating goes on the inner side of the package in order to make heat sealing practicable. At the two ends of the pillow-shaped unit sealing is, of course, no problem, since the two polyethylene surfaces come together at those points. But the vertical seal is a different matter. Here, an

® "Mylar" is the DuPont trade name for its brand of polyester film.
† See "Polyester Film Is Here," MODERN PACKAGING, July, 1953, p. 98.

ingenious fold-over seam is employed. One edge of the web is folded back so as to expose its inner surface, which is then sealed to that of the other edge. The extra flap thus formed is held in place by the slight crimping action of the end seals.

The problem

Philadelphia Steel & Wire Corp. is one of the largest manufacturers of spring-lock washers, which are small single coils of tempered metal that have a great variety of industrial applications. They fit under a nut on the end of a bolt or between a screw head and a threaded part, providing tension as they are compressed, which keeps the nut or screw from loosening. Spring-lock washers are used by makers of automobiles, farm implements, electrical appliances, instruments, etc.—anything, in fact, that is put together with nuts and bolts. From a packaging standpoint, these useful little washers have one very troublesome feature: a nasty sharp edge that can easily puncture most conventional wrapping materials.

The washers must, of course, be made in a wide range of diameters, thicknesses and metals. Philadelphia Steel & Wire does the complete job of manufacturing and packaging them in more than 100 different types. The company's facilities even include its own steel mill.

The washers are distributed in two ways: through jobbers, who send them on to mill supply, auto supply and retail hardware stores; and in bulk directly to large industrial users. For both types of sales the company some time ago saw definite advantages in using a unit pack even though, up till now, such packaging had been virtually unknown for this kind of product.

For bulk industrial sales the washers are loaded into large fibreboard "kegs" holding many thousands each. When these shipping cartons arrive in the user's plant, the washers often must be distributed to many separate departments or assembly lines. Some users, in fact, actually have themselves been repackaging them in small paper envelopes or other containers for in-plant distribution.

Under Philadelphia Steel & Wire's new plan, this is no longer necessary. The same fibreboard kegs are used, but instead of being loaded with a bulk quantity of washers, they are filled with the same number packaged in the new Uni Paks. These make distribution simpler, inventories easier to keep and the possibility of sizes getting mixed much less.

For sales through jobbers, an automatically filled unit pack offers even more advantages over the conventional hand-filled fibre carton. It provides visual identification for the contents and it gives a more accurate count.

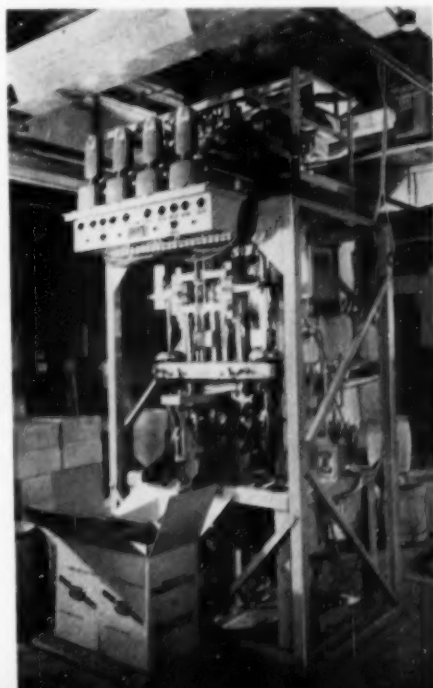
The company's standard package for jobber sales is a sturdy metal-edge fibre carton with locking cover flap, printed in black and silver. This is a very satisfactory conventional package, but the flexible Uni Pak offers something entirely new and different—and something which can easily be filled on automatic equipment.

For shipment to the jobbers, Philadelphia Steel & Wire now packs 10 Uni Paks into a metal-edge

Previously, metal-edge carton, conventional package for this product, had to be filled by hand. New pillow-type Uni Pak is automatically filled by precise net-weight count and imprinted with quantity and size of washers enclosed.



Automatic machine incorporates four net-weight scales, which accurately count correct portion of washers for two packages at once. Washers are fed to hopper from floor above; sealed packages are loaded directly into shipping cartons.





New kind of seam was necessary, since polyester film on outside of package cannot readily be heat sealed to itself. Edges of web are brought together so that two inner coatings of polyethylene are face to face and can be sealed. The flap that is formed is held in place by crimped ends.

carton. This carton is printed with full descriptive information on the end, so that it may be stored as is on a jobber's or retailer's shelf. A perforated tab marked "Full" can be punched out after one of the unit packs has been removed.

Polyester to the rescue

In theory, then, there have long been many good reasons why these washers could profitably be packed in automatically filled unit packs. Philadelphia Steel & Wire, in fact, has been experimenting with this sort of package for two or three years. But the big problem has always been to find a packaging material that would hold the sharp-edged washers. The company had tried all sorts of things, but never

had discovered a material that could stand up under the impact of the washers' sharp metal points. For example: Some time ago, the company tried a package produced from heavy kraft coated with a plastic. Sample packages were shipped half way across the country and back by regular Parcel Post. The results were disastrous, with 98% breakage.

Only with the development of a film that combined the superlative strength of polyester and the heat-sealing and easy-handling properties of polyethylene was a successful Uni Pak possible. When the same rough-and-ready Parcel Post shipping test was tried on this new material, breakage dropped down to zero, the company says.

Although more than 30 different packages are now being used for washers of various sizes and thicknesses, all of them are formed to the same width—3½ in.—from a web of film 8 in. wide. A broad black-and-white striped pattern is used, with a 1½-in. vertical white stripe running down the center of the front of each Uni Pak, flanked by narrower black stripes along the edges, on which trademark and company name are reverse printed in white. In the center of this white area is stamped the quantity and size of the washers enclosed.

On the rear, or seam side, this center area is left blank so that the washers themselves are visible.

Although their width is kept the same, the bags' lengths vary from 2¾ to 6 in., depending on the quantity and size of their contents. For resale through jobbers, the company is currently putting up washers in the ¾- and ½-in.-diameter sizes (heavy, medium or light series) 50 to the pack. Five smaller sizes of washers (also in these three

[Continued on page 199]

Same package, two kinds of distribution



For industrial users, the Uni Paks are loaded into heavy fibre shipping cartons in large-quantity lots. Individual packs can then be distributed to departments or assembly lines within a plant as needed.



For jobber sales, they are packed in metal-edge cartons in lots of 10. Note "Full" tab on end of carton which jobber punches out when one or more packages have been removed.



An easy pull rips strip across top of sealed carton between series of diagonal perforations on both top flaps with absolutely no tearing of inner liner.

So simple is the construction, it requires only special die cutting of flaps, perforating attachment on cartoning equipment and polka-dot spot gluing. Pattern of die cutting and series of perforations is shown on opened carton. Sealed carton shows how cutting top flap permits finger grip on notched tab.



Pull-tab cereals

Easy-open convenience feature now extends to the simplest unit package, as General Mills introduces tear strip for all consumer food packages

A clever new pull-tab tear strip which has appeared almost over night on all General Mills' cereals, pie-crust, cake and frosting packages looks like the answer at last to a truly efficient, economical easy-opening device for food cartons.

The idea which is being patented seems so simple that many packagers will be saying, "Why didn't we think of that."

A series of diagonal perforations are made lengthwise across the two spot-glued flaps of an ordinary carton. The under flap is notched at one end to provide a tear tab. The upper flap is die cut to permit a finger grip on the tab when the two flaps are sealed in a closed position. An easy pull rips a strip across the top of the sealed carton between the perforations as easily as bark off a birch—with absolutely no tearing of the inner paper bag liner.

The man responsible is Stanley Grapp, a young physicist in General Mills' Research Packaging Department. And the full story of the development, which co-workers refer to as "Grapp's Flap," is told in the current issue of General Mills' house publication, "Progress Through Research."

Assigned to the problem of devising an efficient

new carton for Betty Crocker's new Answer Cake mix including an aluminum foil baking pan, Grapp found that all the elements went in a carton all right. But when the box was opened by a housewife's usual methods—tearing, cutting or pressing front or side panels—the pan was damaged. A larger package was a possibility, but more costly.

The only alternative was a new kind of opening device.

Grapp experimented with many of the opening devices now in use. None was what he wanted. Side strips weakened the carton. Push-in perforated tabs damaged the pan. Tuck flaps like cracker cartons required new machinery and overwraps to prevent tampering. He tried more, until he had a tableful of cartons—pushed, punched, torn and pressed. Finally he got a clue from the way people open the conventional type carton, either by tearing the top away from the top panel, or by tearing the top flap across one way and the flap below across the other way.

"The top flap is hard to tear," he reasoned, "so perforations will be necessary." By placing the perforations in the top flaps, he kept the carton

That cigarette box

*Here's the first, full story of the machine,
made in Britain, which has produced, for Marlboro,
one of the most-talked-of packages in years*

Few packaging innovations in recent years have aroused more public attention and comment than the hinged, flip-top folding paper box with which Marlboro shattered cigarette packaging tradition a year ago. The package is primarily credited with a spectacular 5,000% rise in the rate of Marlboro sales in one year.

Although little has been said about it up to now, packagers realize that behind such a radically new package, used in such volume, there must be a practical, high-speed packaging machine. And packagers in dozens of product fields are beginning to wonder whether the same machine and same package may not work the same magic on their sales.

Questions have been coming from many quarters: Can an automatically formed, flip-top folding box, like the one used for Marlboros, be adapted for cigars, confections, vials of perfume, lipsticks, hosiery, sanitary goods, hardware, adhesive bandages, crayons, pencils?

For a number of applications where a convenient, reclosable paper package made in-plant at extremely high speeds is desirable, the answer eventually will be "yes." However, there may be a fairly long wait. The demand of the cigarette industry is reportedly

so great at present that it may be some time before enough of the ingenious, British-made machines, known as "hinge-lid packers," can be designed and produced to supply industries outside the tobacco field.

Eventually, it is also probable that the machine will be adapted to form much larger boxes, although the machinery firm says it has not been able to give serious consideration to such expansion of the principle as yet.

Prior to the introduction of the box package, Marlboros sold at the rate of 250-million cigarettes a year. Today they are selling at the rate of nearly 12 billion a year.

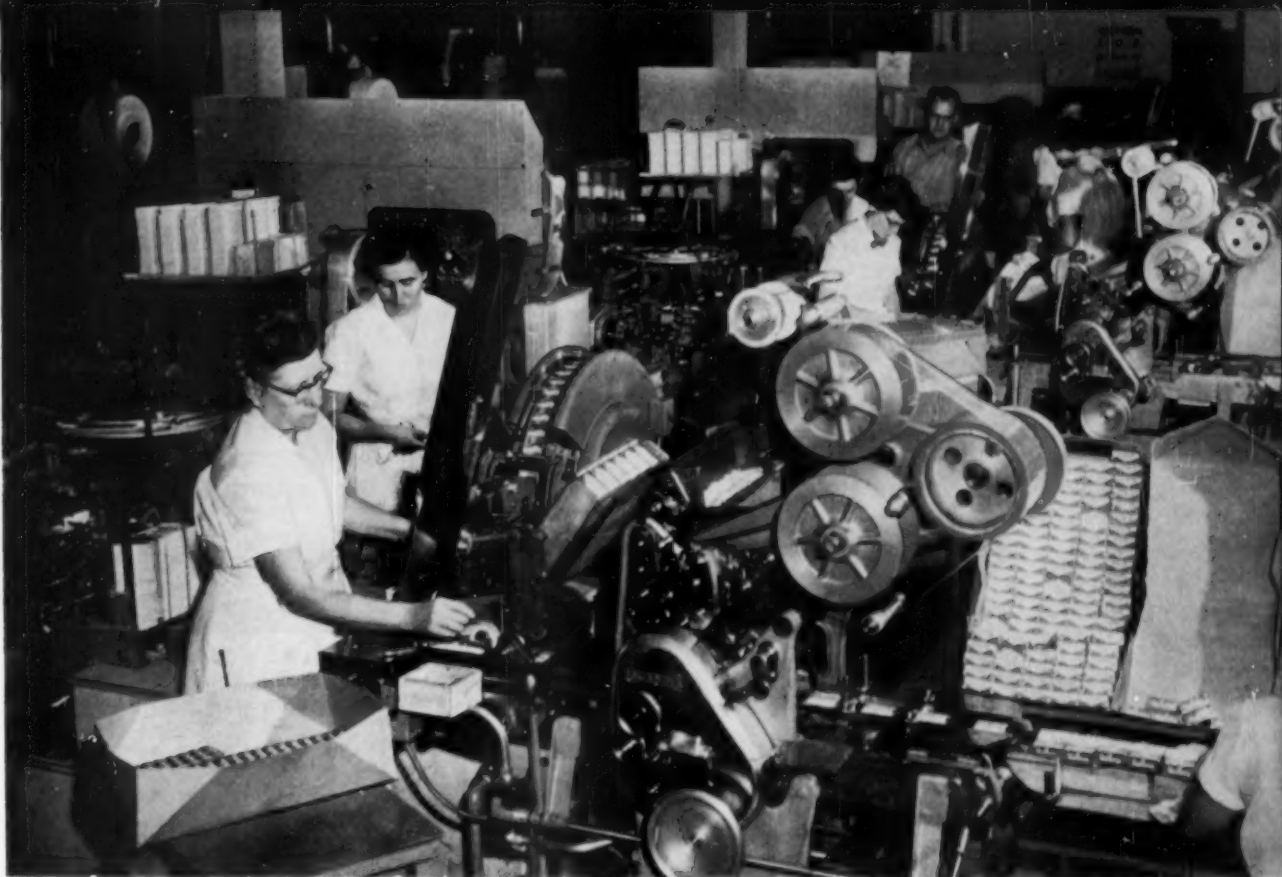
A different version of the same box has been adopted also by United States Tobacco Co. for its Encore brand cigarettes. Using the same basic British machinery for packaging, the Encore box—which is flatter and wider, and has a unique two-compartment inner partition—helps to illustrate the variations that are possible.

There is speculation in the trade that another well-known brand, now in a set-up box, may soon switch to the flip-top box.

Details of the machine operation—the real story

5,000 % sales increase for Marlboros in nine months is largely attributed to consumer acceptance of flip-top box. Latest version of package has protective foil pull tab covering cigarettes. Twin inner pack is feature of wider, thinner, continental-style Encore box formed on same type of machines with double-scored fold in inner frame board to provide separate compartment for each twin pack of 10 cigarettes each.





Battery of machines in Richmond, Va., plant of Philip Morris is operating round-the-clock. Each is capable of 120 Marlboro packages per minute. Foreground shows finished boxes moving into cellophane wrapping machine prior to cartoning. At extreme left is circular feeder that carries inner-frame board to foil-wrapped cigarettes. In center is heating drum where glue is set after box has been formed around cigarettes.

behind this packaging success—are presented here for the first time, with the cooperation of Philip Morris Inc., makers of Marlboro, and the United States Tobacco Co., makers of Encore.

The Marlboro package

In the Richmond, Va., and Louisville, Ky., plants of Philip Morris, batteries of machines are running on a round-the-clock basis, producing (according to their rated speeds) 120 Marlboro packages a minute. Despite this production, Philip Morris says, the demand has been so great that until the recent arrival of more machines, Marlboro had been on allocation in the 60% of the market the company has so far been able to supply.

The packaging procedure, apparently, is quite the reverse of that of the conventional paper cigarette wrapping operation. In the latter, the package is formed first and the cigarettes placed in it. In the new folding-box operation, the cigarettes are wrapped in stages and the box is formed around them.

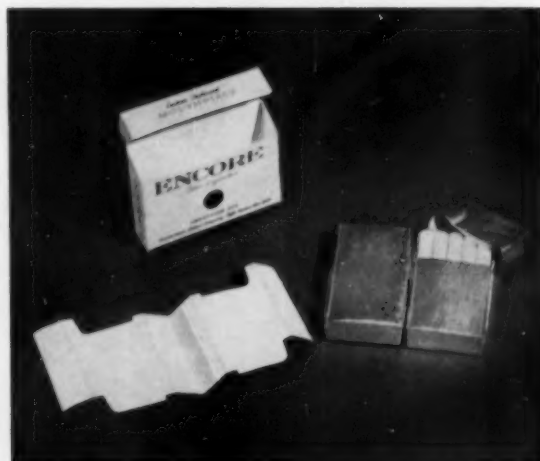
The mechanics of the operation are more readily visualized when the components of the package are described. They consist of 20 cigarettes, first

wrapped in two pieces of aluminum foil; a die-cut and scored inner-frame board which provides the reclosable feature, and an outer box blank which is formed and sealed around the product. Equipment for applying the revenue stamp and outer cellophane wrap are integrated for application after the completion of the box package.

One machine to do the entire operation covers an area about 10 by 8 ft., arranged in the shape of a "U." On one side of the "U" is a hopper into which are placed the loose cigarettes. On the other is a magazine into which are fed the pre-cut carton blanks. By a series of synchronized moves, these two elements—cigarettes and carton blanks—work simultaneously from opposite directions until they finally meet. Foil wrap and inner frame are applied at intermediate steps. It takes just 1½ minutes for a box of 20 cigarettes to complete the cycle.

In the hopper, the cigarettes are conveyed down a glass-encased cigarette vein to a point where a plunger ejects 20 cigarettes into an arbor—a metal rectangular receptacle built to the size of the box. The arbor receives the three rows of cigarettes, arranged seven on the top, six in the middle and seven on the bottom, as in the conventional cigarette

Marlboro components consist of paper-backed foil, roll fed, embossed, cut and applied in the machine; inner-frame board, die cut and formed in the machine, and placed over the foil-bundled cigarettes; carton blanks, illustrated here opened and flat.



Encore package contains two foil-bundled packs of 10 cigarettes each with pull tab, placed under the frame board with a double-score fold in center before the box blank is formed around the two packs. The finished package thus has two separate compartments.

package. Eight arbors are attached to a turret. As each arbor reaches the lowest point on the turret, its content of 20 cigarettes is transferred as a unit in the same three-row position to metal "pockets" or "buckets" designed for this purpose on the main conveyor track of the machine.

Each unit of 20 cigarettes is wrapped in foil from a roll above. When the foil reaches the cigarettes, knives cut it into lengths for covering the cigarettes. In the beginning only one piece of foil was used. More recently, however, Marlboros are being completely covered in "bundles" with two pieces of foil, one serving as a tear-out pull-tab when the package is opened. The foil is pre-embossed with an over-all pattern of the word "pull." Eventually the embossing will be changed so that the word "pull" will appear only once, accompanied by an embossed legend: "a product of Philip Morris."

The foil-wrapped unit is then ready for an inner frame of paperboard, which comes from a roll placed underneath the machine. As the board emerges from a feeder, it passes die-cutting rollers which cut, score and crimp the edges slightly to form the inner frame that gives the box its easy-to-open and reclose flip-top feature. When the feeder connects with the main track containing the foil-wrapped cigarettes, the frame board is positioned over the top and sides of the pack.

The bundle of cigarettes is then ready to meet the outer box blanks, which have been moving toward it simultaneously from the opposite side of the machine.

Prior to being folded and sealed around the wrapped bundles of 20 cigarettes, the carton blanks—vacuum fed individually from the magazine—have been transferred by chain conveyor to a point where the first step in the box forming takes place. A top fold is made to give double thickness to the lid, is glued and then is passed through a pressure unit.

In subsequent travel, the partially folded blank is fed into a pocket that forms the top and bottom of the box in preparation for receiving the foil-wrapped unit with inner-frame board, which is transferred into the box at this step of the packaging operation.

While Marlboro cigarettes are transferred as a foil-wrapped unit to the box, this unitizing would not be necessary in adaptations of the machine to other packaging purposes. Multiple items can be transferred loose to the partially formed box. In fact, in certain foreign applications where foil wrappings are not used, the box is formed around loose cigarettes, according to the machinery manufacturer.

Forming continues as the assembled unit moves

along. Glue from a well is applied to the sides just before the package enters a circular heating drum, where sides are folded and glue set as each box makes a complete cycle in the multiple-station drum. On ejection from the drum, the boxed cigarettes are ready for mechanical application of revenue stamp and cellophane wrap, prior to placement in 10-pack cartons.

Normal production requires four attendants for each machine, in contrast to two for standard cigarette packers. One attendant feeds the cigarette hopper; another fills the box-blank magazine; a third stands in the "U" slot of the machine to see that everything moves smoothly, and a fourth fills the cartons of 10s.

Precision is vital to the success of this intricate machine.

Each worker must be thoroughly schooled in its operation. Marlboro has 230 women working on the machines at Richmond and 65 men who service the machines and supervise. In the beginning, this meant an intensive training program. It took two weeks to train a woman to operate the machine and several weeks before she could be entrusted alone with it.

The four women who work on each machine take

turns doing the different jobs. Each loads a while, then switches to attending the machine or putting finished packages into cartons.

When the machines were first introduced, lectures were given to groups of four or six employees to explain procedure. New employees are given the same instruction.

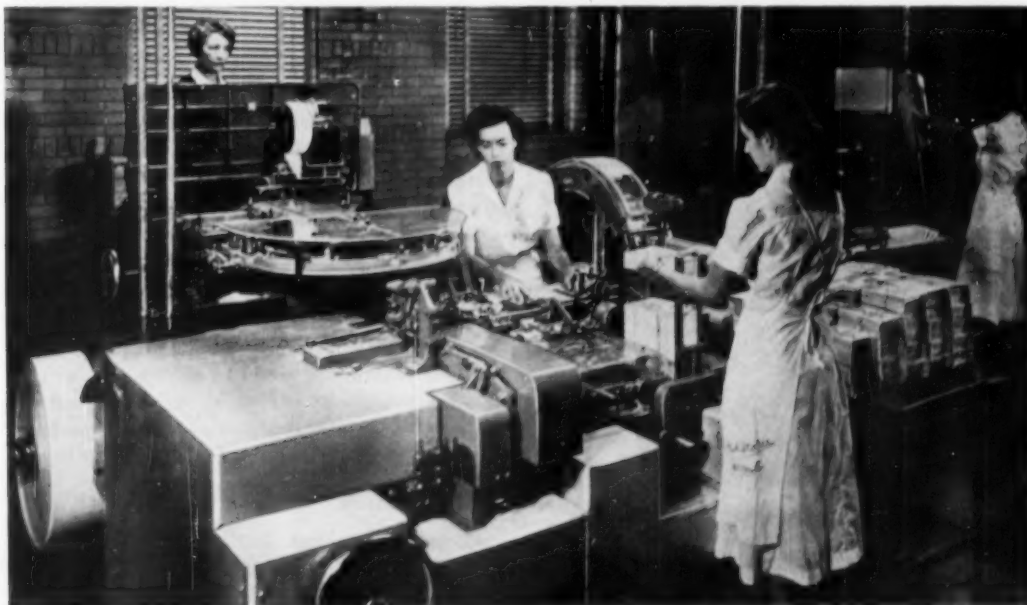
Thirteen men, called "fixers," service the machines. It takes a man with previous mechanical-maintenance experience three to four months to gain a thorough understanding of the machine. Six to eight months are required to train an inexperienced mechanic.

If anything goes wrong, the machine stops and colored lights instantly locate the source of trouble. If there is trouble with the inner-frame board, a bulb marked "inner-frame board" lights up. Similar lights detect trouble with "foil," "heating drum," "reel," etc. The machine will also stop if an arbor does not contain an exact count of 20 cigarettes and will eject the imperfect count.

The Encore operation

The principle construction differences between the Encore package and the Marlboro package are [Continued on page 194]

U-shaped arrangement is more clearly illustrated by Encore installation. Cigarettes are loaded and fed into machine from hopper at left. Box blanks are fed on opposite side of the "U." Cigarettes pass through hopper channels and are transferred in units of 10 to two enclosed tracks, receive foil wrapping embossed in the machine and partitioned inner frame. They are then ready for transfer to box blanks moving from opposite direction. After completion of forming, packages enter heating drum shown behind girl in center. After application of revenue stamp and cellophane wrap, finished packages emerge at extreme right.



Miniature squeeze tube

*A new method of sealing a tiny amount
of liquid or cream in a section of impermeable saran tubing
opens new single-dose possibilities for difficult products*

Latest innovation in a one-shot, disposable container for the precisely measured single application or dosage of liquids or semi-solids is a tiny, intriguing new unit package of thin-walled saran tubing with an ingenious "squeeze" dispensing feature.

There's no cap to remove, no corner notch to tear off. The user simply pinches the tube to pop the seal and expel contents.

Three features distinguish this compact new tubular package:

- ▶ The easy method of dispensing provides a new convenience that is unique in this field of miniature containers.
- ▶ The use of seamless saran, with its high resistance to chemical permeation makes it possible to hold drugs, perfumes, paints, foods and many chemicals which have been problems in small unit packages of some other flexible materials.
- ▶ The method of forming and filling the package on special high-speed machinery reportedly offers an

extremely high degree of accuracy of fill—within 0.01 cc.—which is important for pharmaceuticals and high-cost products.

The tubing is formed, filled and made into a container by a solid heat seal on the bottom and a dispensing seal on the neck end. When the tube is pressed between the fingers, the neck seal, held by a special sealing compound, breaks and contents are neatly expelled.

The secret of this easy dispensing is the shaping of the neck seal with a very narrow channel through it. Pressure on the container forces contents through the channel, at much higher pressure, causing the seal to pop at the mouth of the channel. Only deliberate pressure, it is said, will break the seal.

Among the first users are Ciba Pharmaceutical Products, Inc., for professional sampling of Nupercainal, a topical anaesthetic ointment, and Lenthéric Div. of Olin Mathieson Chemical Co., for consumer samples of its "Adam's Rib" perfume fragrance. These two applications serve to show not only typical product, but the two basic construction variations.

The new containers are the result of more than four years of research and development on the part of a newly organized firm which controls the machinery and at present makes and fills the packages only on a contract basis. Major problems were developing an efficient method of heat sealing the saran and proper compounds for the dispensing seal.

The packages are produced in continuous machine operation, which makes the bottom seal, fills the container, produces the top dispensing seal and cuts the container to proper length.

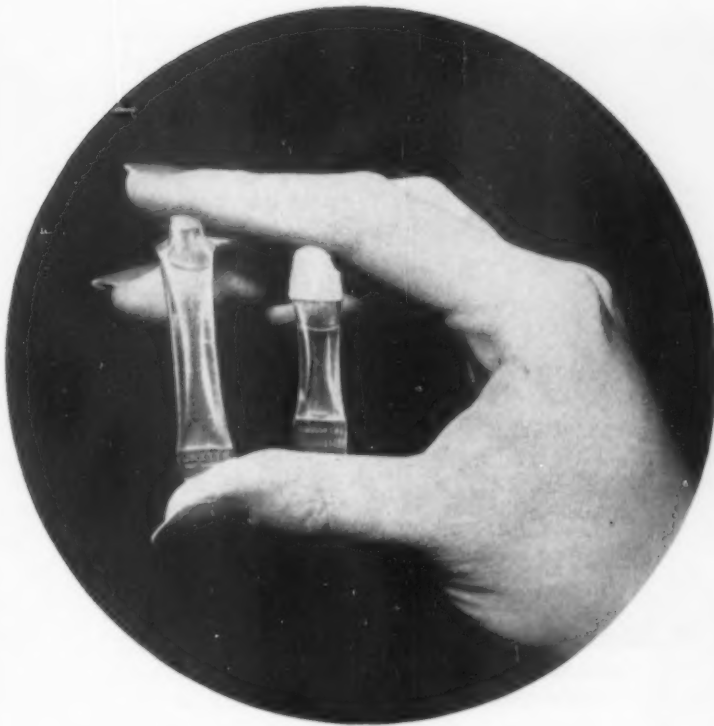
The tubing may be made transparent to permit complete visibility of products, or in a wide variety of opaque colors if product appearance is not essential or desirable. The packages can be made at present to hold quantities from 0.2 cc. up to 6.0 cc.

Ciba's research

Most exhaustive tests on the new containers were made under the direction of L. H. Zahn, manager of Ciba's Methods and Package Development Div.,

The machine makes the packages in a continuous operation. Tubing is bottom sealed, filled, top sealed and cut to the proper length.





Two versions of the tiny disposable saran containers, showing solid seal at bottom and dispensing seal at top. Container at right has cotton cap that acts as applicator after seal is broken and the cotton becomes saturated with the liquid contents.



Finger-tip pressure breaks seal and expels contents. The Nupercainal sample (above) shows shape of neck seal with narrow channel through which force of liquid pops seal. Lenthieric sample (below) shows cotton cap in use as an applicator.



which started distribution of its Nupercainal ointment samples in these new unit containers early in December.

Ciba was interested in investigating the potentials not only for sampling, but as a possible solution to future packaging problems where the accurate, pre-measured single application is a requirement, or where quick application is an essential. Nupercainal is an anaesthetic ointment to relieve pains, itching, simple burns, sunburn, minor cuts and wounds. The convenience of being able to grab a single one-shot tube and squeeze it without the delay of opening the container is a great advantage in the treatment of burns.

Laboratory study, it was reasoned, would evaluate efficiency of the package. And by sending samples of it to physicians, Ciba could learn something about user acceptance. But before entrusting the product to the package for a full-scale sample mailing, it was necessary to know:

1. Whether the package seals would hold the product without oil seepage or leakage.
2. Whether there would be any appreciable mois-



Strips of six unit samples of Ciba Nupercainal ointment are made by affixing label tape printed with product identification and perforated for easy tear off. Slide-and-shell mailer holds four of these strips or 24 one-dose samples. Package insert pictures show how to dispense the containers.



Accuracy of contents can be controlled within one hundredth of a gram. Engineers examine two different sizes, barely discernible, but one is slightly larger to fill specific need.



Attractive presentation is provided for perfumery. Two units of Lenthier's "Adam's Rib" fragrance are placed in well-identified folding paperboard carton with selling copy and directions for dispensing the contents on the bottom.

ture loss, which might possibly cause the product to dry out.

3. Whether a satisfactory pressure could be specified at which the seal would break easily between the fingers, yet be strong enough to prevent leakage or breakage during mailing and handling up to the time of use.

The general protective characteristics of saran film, of course, were well known. Samples of the material immersed in Nupercainal compared with control samples immersed in lanolin in accelerated

tests indicated that saran was suitable for containing Nupercainal.

Test packages placed in a desiccator over sulphuric acid at room temperatures and weighed before and after indicated that seals could be made satisfactorily for suitable storage periods.

Instrument tests showed that the bottom heat seal could be broken only with difficulty at 50 lbs. p.s.i. Developing a satisfactory top-dispensing seal was more difficult. Original sealing compounds allowed the containers to open under too little pressure. Others required too much pressure. A sealing compound was finally arrived at that would burst under about 30 lbs. of pressure, which was concluded to be sufficient for practical purposes. Further examination showed no evidence of leaking or opening up with sealing compounds that would hold this pressure. And by ejecting contents by hand from numerous samples, it was concluded that higher pressures might not be an improvement because they would make the containers too difficult for the user to break open.

Ciba's tests, in cooperation with the supplier, have resulted in greatly improved containers over the original test samples submitted.

The Nupercainal sample containers, each holding just 0.6 gm., are being made in the same cream color as the product and the sales package. Twenty-four of them are put in a slide-and-shell paperboard

mailer, each six held together in a strip by means of a perforated pressure-sensitive label tape, affixed to the base seal on which is printed product and trade identity. A neat printed insert pictorially describes how to dispense the product from the new disposable single-dose samples. And just as a further precaution in case there should be any possible seepage of contents from the miniature containers, the surface of the slide-and-shell mailer has been waxed and varnished so that no possible leakage may cause unsightly staining of the carton.

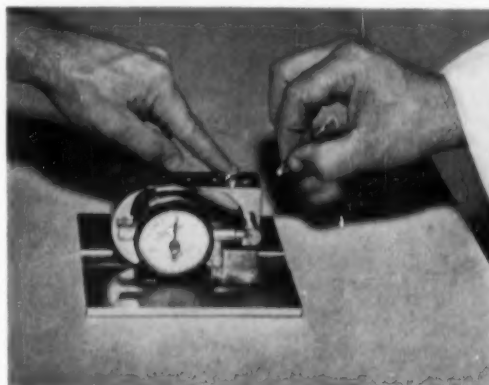
Lentheric

The differentiating feature of the Lentheric container is a specially designed cotton cap affixed to the dispensing seal end. When the seal is broken, the cotton acts as a convenient applicator, since it becomes thoroughly saturated with the perfume contents. The same dauber principle is applicable to many other products.

Lentheric's protective problem differs from Ciba's in that the container must, above all, lock in the delicate perfume fragrance. The high resistance of saran to the transmission of aromatics indicated from the beginning that this new miniature tube package had unusual possibilities in perfumery. Moreover, the saran imparts no odor of its own—a condition that has always been troublesome with blotter sampling in the perfume field.

Laboratory tests at Lentheric, thus, were concerned with study to determine how effectively the saran containers would hold the perfume fragrance and also to establish satisfactory breaking-point pressures for the self-dispensing seal.

The sealing compound for liquid products like perfumes can be somewhat different in formula from what is necessary for viscous products. For liquids it is preferable to have a slower "open up" of the [Continued on page 202]



Bursting test. Seal at the dispensing end must withstand ordinary pressures, yet must open easily when container is squeezed between fingers.

Size variety is unlimited within range of 0.2-cc. up to 6.0-cc capacity. The tubing may be clear transparent or supplied in a variety of opaque colors.



Distinguishing color banners differentiate product groups for quicker selection: red for spaghetti products, blue for macaroni products, brown for products containing meat. New yellow background, which replaces the formerly used pale green, bids for stronger shelf impact.



The subtle change

Franco-American redesign shows how labels can be made to look better and work better without loss of well-established features



A redesign program does not always entail a drastic revision of existing packages. Often design improvement demands the kind of subtle approach that looks "so easy," but actually requires expert design skill.

This is particularly true for nationally advertised brands whose packages have become familiar faces over the years. Campbell Soup Co.'s Franco-American line is an example.

Without apparent change, the company wanted to improve legibility, step up appetite appeal and make a bid for increased shelf facings.

A few years ago Campbell accomplished this objective for its condensed soup cans. Few consumers noticed the change. This was what Campbell wanted. A barely perceptible design revision was made to give a better balance of the familiar red-and-white color split and a more legible Campbell logotype.

A new design with similar treatment and aims has just been developed for Campbell's Franco-American line. Redesign was sparked by the introduction of two new products—spaghetti with meatballs and spaghetti sauce with mushrooms.

Campbell wanted to make certain that consumers would recognize the two additional products as new and identify them with the line.

Further study in conjunction with the company's package-design consultants indicated the necessity of more rapid product recognition. Shoppers needed a faster way of picking specific Franco-American products from a line which includes spaghetti, spaghetti with meatballs, macaroni, spaghetti sauces and beef gravy. A color change was also proposed to give increased mass display impact.

The possibility of a complete package change was contemplated, but rejected because of the equity in the existing label. Final decision was for the subtle approach.

The former pale green label background gave way to a golden yellow for "a sunlight association connoting freshness and wholesomeness." In mass display the yellow "front" also comes across with greater impact and "vivid taste appeal."

Distinguishing colors for the long-established brand-name banner on the label now help shoppers

to find the various products: red for spaghetti products, blue for macaroni products, brown for products with beef.

Across the banner, the Franco-American logotype was given a modernized sans serif styling (as with all typography in the redesign) and now appears in reverse white, larger than before. The gold trim around the banner was narrowed to focus attention on the logotype. Result: increased readability of the brand name.

The old wreath device around two shields was dropped to keep visual emphasis on brand name and product identity. One tiny, simplified shield was retained to keep a quality look and help maintain resemblance to the former label.

Over-all, the new labels still look like "Franco-American," but read faster, provide greater appetite-stimulus and mass display impact, and make it easier for shoppers to make a quick selection of the specific products they want.

Credit: Design program by Lippincott & Margulies, Inc., 430 Park Ave., New York 22.

With imperceptible change, design has been sharpened. Lettering is bigger, more legible, with quicker recognition for product. Old wreath and shield has given way to tiny simplified shield.



PAINTS

*More than ever today it's a consumer market,
and paints and finishes are in need
of packaging's push toward better merchandising*

You can't think of paints and other finishes without considering the package. Paint by its very nature has always been a packaged product. In the odorous and antiquated paint store that existed many years ago white lead came in an oak keg or metal drum. Turpentine and linseed oil, the principal ingredients for mixing paint, were dispensed into the customer's jugs, cans or bottles. The closure as often as not was a corncob stopper. The color system consisted of a

card showing only a few of the "protective" colors.

About 45 years ago the round metal can with the multiple-friction lid became available and factory-mixed paints were introduced in retail container sizes ranging up to one gallon. Pails and drums in larger sizes were developed for contractor and industrial uses. Soon after its introduction, the 1-gal. paint pail appeared with soldered-on ears and a bail that permitted easy carrying. This container was so pro-

Ingenious color systems like this Dutch Boy Color Gallery enable shoppers to select colors with the skill of a decorator from a fabulous range of shades.



PHOTO COURTESY NATIONAL LEAD CO.

A one-shot collapsible tube of colorant avoids the problem of inventorying hundreds of ready-mixed paint colors. The unit containers take up almost no space, can satisfy customer's most exacting color needs simply by emptying contents of tube into a can of base white paint.



PHOTO COURTESY NATIONAL LEAD CO.

fective, convenient and useful that it became as standard in the packaging of paint as is the sanitary can in the packaging of processed foods, or the milk bottle in the packaging of milk.

In fact, the metal can was and still is such an eminently successful container for paint that one has to search quite diligently to find additional paint packaging developments in the first 30 years after it was introduced.

About 1940, however, some major changes in the paint industry could be discerned. New paints, new packages and new merchandising concepts began to appear. And following World War II, the United States broke loose on a building and home-improvement spree that carried paint sales (f.o.b. factory) to the first billion-dollar year in 1947 and to an all-time record high of \$1.5 billion in 1955. Reportedly, the paint and varnish industry sales are now ranked 28th among the country's industries and rank seventh in the chemical industry.

PHOTO COURTESY DU PONT



Removal of varnish becomes as easy as pushing a button. Working packages like the aerosol, therefore, have a big future in the paint field.

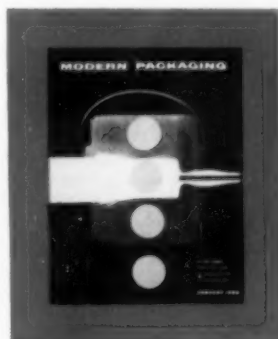
As impressive as are the size and growth of the paint industry, it would scarcely be correct to say that its success is largely attributable to its merchandising leadership or to its contributions to packaging.

The typical retail outlet for paint, despite the undeniable value and efficiency of the services it renders, is one of the remaining strongholds where self service is not a major trend and where the package is not king.

However, new and powerful buying influences are at work not only in the paint industry, but everywhere else. A part of the growth in the sale of paint and other finishes is due to the fact that paints are easier to use. The introduction of rubber-base and resin-base paints and the paint roller have made painting easier.

Color additive packaged separately in a one-shot collapsible metal tube has brought the shopper a choice of hundreds, in comparison with the former

Industry Survey



These packages break with tradition



PHOTO COURTESY THE GLIDDEN CO.

Liquid aluminum suggested by this label is designed to catch the buyer's interest and make the retail clerk's selling job easier, more efficient.



Sales appeal of Holiday Inn paint is dramatized by association with the color and architectural design of the national chain of Holiday Inns, known for their de luxe appointments.

New design of Krylon package (left) gives emphasis to color, price and use. Interesting innovation is closure that duplicates the color of the spray. Closure thus becomes a color chip and complete display of cans is its own color chart.

choice in dozens, of so-called decorator shades. Many major color systems like Glidden's "Dramatone" color rack and National Lead's "Dutch Boy" color gallery are based on one-shot color packages.

The aerosol package has been another important step in the direction of making paint easier to apply. Its use has been limited, in general to applications of a special nature: touch-up paint, the painting of radiators or other hard-to-reach objects and the applying of paint remover.

Basically, though, paint is still not easy to select, purchase or apply. It is a safe statement that there are still major advances to come in the packaging and merchandising of paints. But these will not come about swiftly or easily, for the merchandising of paint is a fairly complex matter, as a look at the paint industry will clearly show.

Well over a thousand establishments manufacture paints and allied products. Paint is manufactured throughout the country, but the bulk of production is near the large urban centers. There are many large and important companies like National Lead,¹ Sherwin-Williams, Glidden, Pittsburgh Paint and Sears, Roebuck, to mention only a few. Also, there are many smaller firms whose brands are important only locally or regionally.

Paint sales are divided into two important categories: trade sales and industrial sales, with trade sales accounting for about two-thirds of the total volume. The bulk of trade sales is made in retail-sized containers ranging from a half pint to a gallon. The industrial coatings are generally distributed in larger-sized containers ranging from drums and pails all the way up to trailer loads and tank cars.

Paints are distributed through many different types of outlets, including 6,000 paint stores, 32,000 hardware stores and 27,000 lumber yards. The major outlet is the paint store, which probably accounts for about a third of the trade-sales distribution.

¹ See "Dutch Boy Paints," *Packaging's Hall of Fame*, MODERN PACKAGING, April, 1949, p. 126.



Hardware stores sell about 23%; building-supply outlets or lumber yards, about 16%, and retail mail-order stores, nearly 12%. The remaining 20% is distributed by mail, through general stores, department stores and miscellaneous outlets.

The distribution set-up for paint and allied products is complicated by seasonal consumption. Spring and summer are the major periods for painting indoors. Summer is the period when the house or barn receives its exterior brightening.

The wife or daughter is most likely to select the indoors color. The husband or son usually selects the brand. Most of the painting is done by the husband or son, although the wife or daughter accounts for about one-third of all the painting done indoors. The husband or son does about 38% of the painting indoors and contract painters account for about 13%. The painting, both inside and out, of practically all new homes is done by contract painters; otherwise, about 70% of all house and interior painting is done by the do-it-yourself painter.

The purchaser of paint is a good customer for accessories: brushes, scrapers, paint remover, caulking compound, drop cloths, thinner and the like.

With the preceding facts in mind, it is easy to see why the retailing of paint is done primarily in a clerk-serviced store, where skilled sales help can aid the shopper in selecting paint and in advising him how best to achieve satisfactory results at minimum expense in cost, time and effort.

Today's local paint store is apt to be a jumble of shelf-stocked packages and a crowded array of merchandise and displays. The selling as well as all the hard work of this store are vested in the owner and his employees. Too little of their operation is "mechanized" for them by self-selling packages and self-selection techniques. Transactions frequently move at a dawdling pace. By way of contrast, customers grind their own coffee in supermarkets, but in the paint store the clerk has to put the can in the vibrator and the rest of the customers wait.

It is against this background of merchandising conditions that the paint industry seeks to maintain or even increase its share of the consumer dollar. In an era when other types of consumer goods are being glamorized and packaged to sell on sight and when credit buying, discount houses and many new types of easy-to-use products are changing the entire structure of retail distribution, it is obvious that the paint industry faces new challenges and opportunities.

The paint packager can definitely look to the package supplier for help. Important improvements in the traditional metal container are already under way.

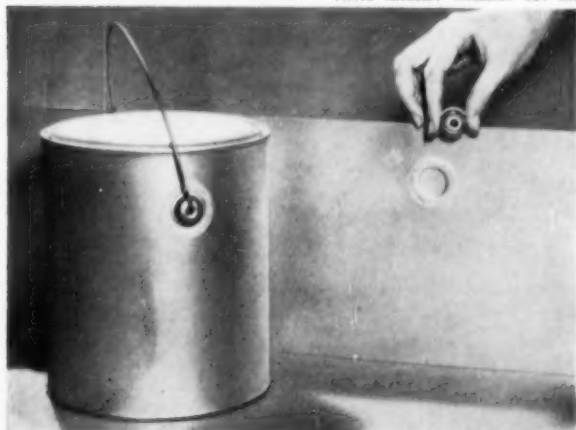
Easy stacking and no-drip pouring containers, already developed in other product lines, are available. The can manufacturers are working continuously to free this country from dependency on tin. One company has developed a container with spun-on ears, eliminating the soldering operation. Another can manufacturer has developed cans designed to provide increased corrosion protection for water-base paints. These cans have an outward curl feature. Raw edges of metal are eliminated so that there is no place for the corrosion process to start when polyvinyl-acetate and latex-base paints are packaged. To the paint manufacturer this should mean better product protection and longer shelf life. Previously all multiple-friction paint-can rings were produced with an inward curl having an edge of raw metal. Corrosion starting at this raw edge could undercut the interior enamel coating and result in further corrosion. Now the raw edge is on the outside of the can and there is no chance of its exposed steel touching the contents of the can.

Another improvement in cans is the wider use of cemented side seams. This method, eliminating the use of solder, does not produce so strong a seam, but it is preferred from a merchandising point of view when lithographed cans are involved, because it permits continuous lithography all around the circumference of the can and eliminates the unappealing bright strip of metal that flanks both edges of the soldered seam.

Paint packagers, paint retailers and paint users can also look to the metal aerosol container for new features. According to one authority, aerosol-applied lacquers could grow to be the largest-volume item dispensed by the aerosol technique.

Aerosol paint packages have grown from approximately 2½-million pigmented and clear sprays in

PHOTO COURTESY AMERICAN CAN CO.



New development is gallon paint can with spun-on ears, thus eliminating the soldering operation and providing a stronger, neater container.

1951 to about 10 million in 1954. They are not a very large factor in the sale of paint at this time, but potentially they are significant. They can be sold in practically any kind of store; they lend themselves to self service and they are an outstanding example of the working package that is so important in today's type of living. Certain natural limitations of size and cost will probably always be present where the aerosol paint is concerned, but for small paint jobs and for those that are hard to do, the convenience of the aerosol is hard to beat.

The paint packager can well look to the plastics field for new help in regard to his packaging and merchandising problems. Polyethylene and vinyl tubes have been used to a limited extent in packaging certain types of paints and colorants. The polyethylene tube and bottle both promise to become even more versatile with the advent of lined containers, employing a number of different coatings designed to hold a wide variety of chemical ingredients.

Sears, Roebuck has introduced what appears to be a significant development in the merchandising of paints. Sears is packaging half-ounce samples of its Master-Mixed wall paints in heat-sealed pouches of polyethylene extrusion coated onto 300 MSAT cellophane.²

The Sears transparent plastic package offers a new convenience. It permits the shopper to try the actual paint on his wall, see how it will look when dry and how it will match drapes, carpets, interior lighting and furnishings. The pouch package is intended to take the place of the conventional color chip and do a better job of helping the customer select the right color. Several samples can be tested

² See "Wet Paint Samples," MODERN PACKAGING, Dec., 1955, p. 95.



Important market for accessory items such as paint brushes, masking tape, paint rollers, scrapers is best reached by merchandise packaged for effective display and self selection.

and, when the right one is found, the other test patches are painted over and concealed by the paint of final choice.

The transparent pouches would also appear to have a potential—perhaps very important—use in the packaging of one-shot quantities of colorant to be mixed into a base paint. The transparency of the package should be a tremendous asset from the standpoint of handling stock, display and sales appeal.

Package-product appeal is an item that is frequently missing in the retailing of paint. It is an anomaly that paints and coatings—so intimately related to styles, fashions and the whole glamorous world of color—employ packages that are way down the list when it comes to package appeal.

There are, of course, some good looking paint packages, but few of them are "exciting." Many emphasize utility rather than beauty and more than a few packages are drab and not very legible. This is hardly good, when one considers that a wife or daughter selects the interior color seven times out of 10, and one-third of the time actually does the painting done indoors. The wife or daughter even selects the exterior color in about three households out of 10.

There is no reason why packages cannot be employed to sell more paint. Sears, Roebuck, for example, introduced a paint thinner designed to be sold by means of its label alone. The back and front of the can were used for informative copy. Strong, bold colors were employed in the design to make the product's name stand out. Results were remarkable. Without any extra sales promotion or added display space, more than three times the expected sales figures were obtained.

The Glidden company has labeled its "Metallite" pure aluminum paint with a label of such striking design that it has resulted in unusually good acceptance. The idea was to give the consumer the feeling that he was actually applying liquid aluminum. This effect is obtained by depicting a stream of liquid aluminum pouring from a ladle. A hand and brush spreading out the molten metal are illustrated to complete the concept. This label, printed in metallic silver, blue, yellow, red and black on white, is an excellent example of a "new look" in paint packaging. Certainly its attractiveness and suggestive theme should make the retailer's selling job easier and more effective.

The packaging of painting accessories represents a large and important field. There may always be obstacles in the way of packaging paints and finishes for automatic selling, but this is not true where paint brushes, scrapers, rollers, drop cloths and

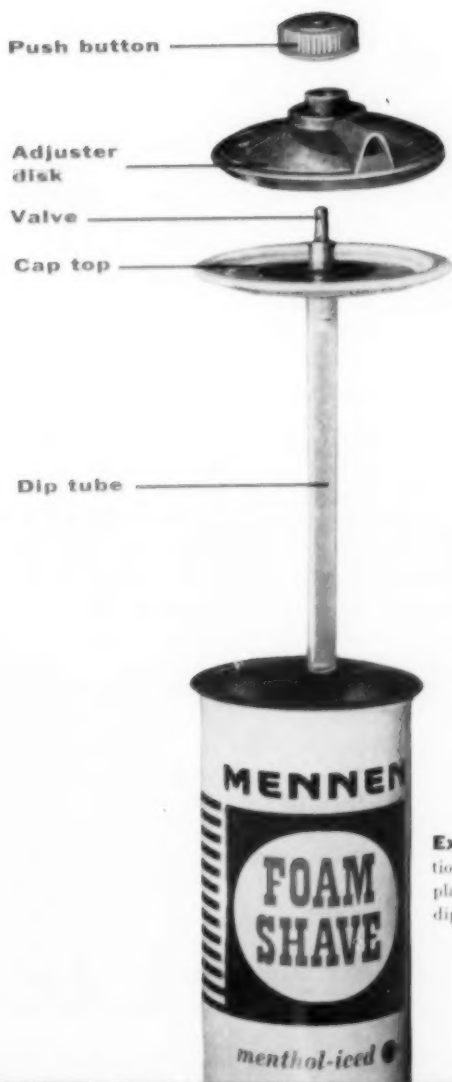
[Continued on page 198]

Mechanizing the aerosol

With two new precision machines that fit seal rings and push buttons to 'live' lather cans, Mennen now has industry's most-advanced line



Aerosol shave cream is one of big packaging success stories of recent years. Mennen's can—one of the simplest—has bright green polyethylene adapter disk with spout to eject foam and red polystyrene push button to operate valve.



An aerosol pressure-filling line that may well be the most highly mechanized in-plant operation of its kind in the world is now in daily use in the Morristown, N. J., plant of The Mennen Co.

The recent installation of two specially designed pieces of equipment which automatically place plastic adapter disks and push buttons has eliminated the most serious and laborious hand operations. The line is already turning out pressurized cans of Foam Shave at a 72-a-minute clip. Mennen is now tying in additional, duplicates of some machines which will push this speed up to 120 cans a minute. At this speed, the line will be operating at a rate comparable with the company's glass-bottle filling lines.

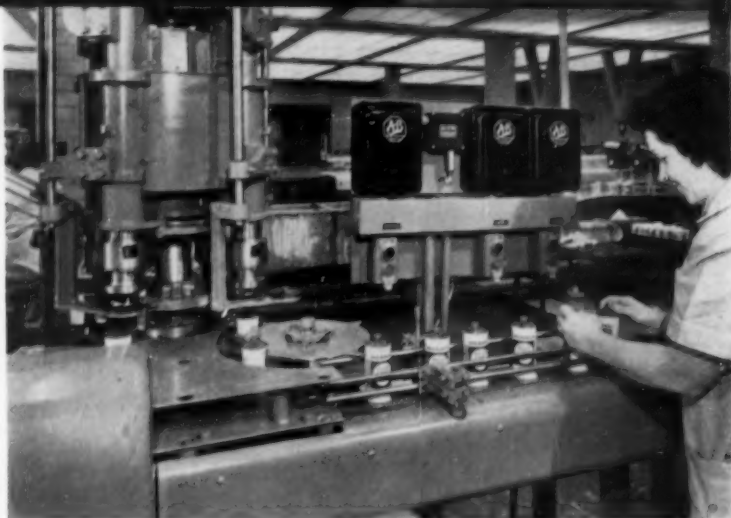
Pressure filling of an aerosol container is a tricky business. Without half trying, you can squirt a foaming jet of shave cream over everything in sight—just by putting on a valve cap that is a fraction of an inch out of line. So, despite the rapid advance of the aerosol as a packaging success story in recent years,¹ the swing to automation in aerosol filling has been relatively laggard.

For the smaller packager, contract filling has been the general rule; for the mass producer, it has

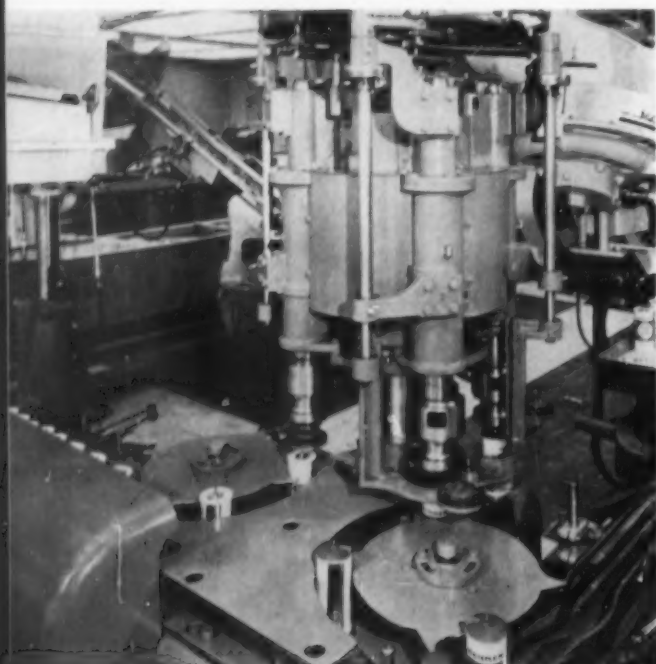
¹ See "Look at the Aerosol," MODERN PACKAGING, Apr., 1955, p. 127.

Exploded view of Mennen can shows position of two plastic attachments which now can be placed automatically. The valve and polyethylene dip tube are attached to can top by supplier.

**Two new machines
are the keys
to automatic production**



Push buttons are attached to threaded valve stems by a similar new machine. Arms lower buttons into place and spinning heads screw them down without using downward pressure. Girl at right checks to see that all cans have adapter disks and buttons in proper alignment. She also supervises machine's operation. Before, it took a dozen girls to do the capping operations shown in these pictures—at half present speed.



Adapter disks of polyethylene are seated automatically around live valves on can tops—a job which in the past had been a slow and tricky hand operation. Disks flow down chute from hopper at upper left and are set in place by sets of four revolving arms and four air-operated chucks moving above the cans. Accurate vertical action is necessary to prevent valves from being opened accidentally.

been a question of using large numbers of manual workers.

Currently, however, Mennen seems to be blazing a new trail, as it incorporates a high-speed, highly mechanized packaging line into its own plant.

Product and package

Pressurized shave creams have had probably the most remarkable history of all aerosol-packed products. Introduced just six years ago, they now are estimated to account for more than half of the entire shave-cream market. Having long since graduated from the novelty class, these products are engaged in a fierce battle for the shaver's dollar. The time has come when packagers must ferret out every

possible way to reduce the cost of packaging materials and labor. Needless to say, increased automation on the filling line is one such way.

Mennen's entry in this race, Foam Shave, uses one of the simplest and most economical of aerosol containers. It switched, about a year ago, from a more conventional cone-top can to a flat-topped 6¼-oz. lithographed container which basically resembles a beer can. As in most aerosols of this type, a small valve is sealed into the can top, to the bottom of which is attached the polyethylene dip tube.

Surrounding the upper end of the valve is a bright green, molded polyethylene adapter disk, which is a special Mennen feature. This covers the entire can end, locking in place in a small groove. It is both

decorative and functional, incorporating the spout through which the lather is ejected. The threaded tip of the valve extends through a small round hole in the center of the disk and onto it is screwed a red button, molded of polystyrene. This button serves a dual purpose: screwed down all the way, it locks the container tightly shut; unscrewed two full turns, it can be pressed down to start and stop the flow of lather. There is no outside cap for the user to remove and, when the button is screwed down, no exposed valve to be accidentally pressed.

The key to automation

The very simplicity of Mennen's Foam Shave can poses two unusual aerosol problems. Both the plastic adapter ring and the screw-on button must be attached to the can after it has been filled with soap concentrate and propellant. The valve sticking up from the center of the top is "live"; any pressure on it from a mis-positioned adapter or button will send shave cream spurting out in all directions. So the job of seating the two plastic elements is a very delicate one.

Until very recently, the only way to do this was by hand. Mennen had to have a row of a dozen girls doing nothing but fitting on the adapters and screwing down buttons. And, with the anticipated increase in line speed to 120 cans per minute, the number of girls would have had to be almost doubled.

But this bottleneck—the key to the whole drive towards automation—was removed when Mennen's

two ingenious new machines were installed. Designed especially for the company by a bottling machine manufacturer, they set the two plastic elements precisely in place without disturbing the valve. And a speed of 120 per minute is well within their operating range.

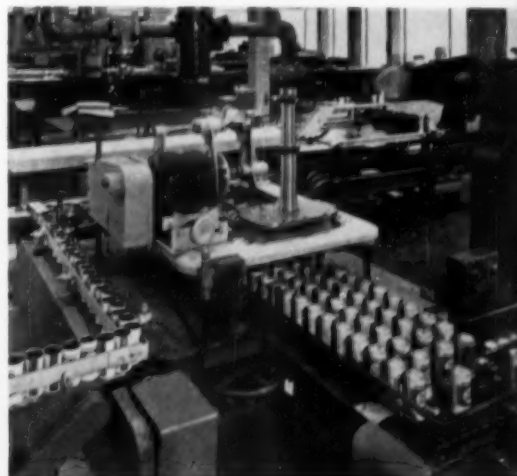
The line itself

Mennen's new automatic Foam Shave packaging line is one of a dozen parallel lines set up in the company's new plant, which turns out every Mennen package sold in this country. Like its neighbors, the line takes the form of a giant "U," beginning and ending in the plant's extensive warehouse section. Here, empty containers are fed onto a conveyor and, a few feet away, sealed case loads of finished packages from the other end of the same line are piled onto pallets.

In between these two points, this is what happens:

1. Paper-wrapped bundles of empty cans, each holding 460, are opened and the cans shoved onto a revolving unscrambler, which lines them up on a link conveyor.
2. The bottoms of all cans are code dated automatically, after which they move on a chain conveyor leading through the wall of the main packaging room.
3. Shunted into four parallel rows, the cans feed into a piston-type filler, which deposits 165 gms. of soap concentrate into each of them, four at a time. The concentrate is piped into the filler from the floor

Beginning and end of U-shaped packaging line is in Mennen's warehouse area. One man unpacks and loads empty cans onto unscrambler (left) and piles up pallet loads of sealed shipping cases. Leaving the unscrambler, cans are then code dated.



Piston-type filler deposits 165-gm. load of soap concentrate in cans, four at a time. Concentrate is piped from floor above. After filling, cans again form single line and pass inspection point (foreground).

above, where all Mennen's products are formulated.

4. Re-formed into a single line, the cans pass by two girls who drop a pre-assembled valve, dip tube and can top combination into each of them. This is a simple operation, which could be mechanized whenever necessary.

5. With their ends loosely in place, the line of cans next is shunted into a sealing machine, in which a leakproof and gasproof connection is formed. First, they pass through a topping section, which fits the recess in the lid squarely over the wall of the can. Then, in the seaming section, it is rolled on securely.

6. After their tops have been sealed tight, the line of cans splits and feeds via star wheels into two "gassers," where the critical job of pressure-filling with aerosol propellant is performed. As each can moves into position beneath it, a filling head drops down and seals itself tightly around the end of the valve. A piston drives down a $12\frac{1}{2}$ -gm. load of liquid propellant, which, under pressure of 90 lbs. p.s.i., forces its way through the orifice of the valve into the empty space in the can.

A reservoir tank at this spot in the line holds a supply of the propellant and is filled by means of a pipeline from the warehouse area, where large tanks of the chemical are stored. Mennen uses 2,000-lb.

tanks which are emptied by means of a continuously operating turbine-type pump. When all the liquid propellant has been removed from a tank, the gas remaining in the tank is sent through a compressor to be changed back into the liquid state and delivered to the reservoir on the filling line. Thus, all the propellant is utilized and no refrigeration is necessary. Mennen estimates that from 40 to 50 lbs. of propellant that would otherwise be lost are saved by the use of this compressor.

This section of the line (stages 5 and 6), incidentally, is the only one not yet capable of operating at more than a 72-per-minute rate. Mennen is currently installing a duplicate seaming unit and another pair of gassers. When these are in place, the whole line will start moving at a 120-per-minute speed.

7. Next stage is the conventional test bath. The cans move in double file on a special magnetic conveyor (which eliminates the need for guide rails) down into a long tank of water. Heated to a temperature of 120 deg. F., the water builds up the internal pressure in each can. Thus, bubbles escaping from any of the submerged cans will quickly call attention to leaks in their valves or in their side or end seams.

8. After rising from their test bath, the cans pass through a blower, where a series of jets of warm air

Covers are sealed. Girl at the left is one of two who insert can ends with attached valve-and-tube assemblies into soap-filled cans. Then cans are sealed by conventional equipment. Equipment now being installed will double capacity here.



Pressure loading of propellant is done by a pair of "gassers," supplied with liquid from overhead pipeline. When can is in position, filling head drops down and $12\frac{1}{2}$ gms. of propellant are rammed through valve. In background is second check-weighing point with automatic calculator.

remove most of the moisture from their outer surfaces.

9. Now, having reached the mid-point of the U-shaped line, the cans again form a single line and move into the first of two special capping machines. The polyethylene adapter disks are automatically sorted and fed into this machine from an overhead hopper and, as the cans move in circular fashion, a set of four arms gently places the disks in proper position. This done, four air-operated chucks press and lock them in place in the grooves on the cans' lids. A special chuck arrangement makes sure that each disk is picked up and positioned in a precise vertical motion, so that nothing touches the valve stem in the center of each lid.

10. The next machine, which adds the plastic push button, is very similar, but with an extra twist. Again, the buttons are fed from a hopper down a chute and set in place by means of four moving arms. The target this time is even smaller: the threaded tip of the valve itself. Once in position, the buttons must be engaged and screwed all the way down, without the use of any downward pressure that would open the valve. Four rapidly spinning heads are used to do this delicate task.

11. These hurdles passed, the rest of the packaging procedure is relatively routine. The cans are nested, six at a time, into folding cartons with corrugated partitions and six of these cartons are packed into a corrugated shipping case. Both of these operations, for the present, are still being done by hand.

12. The cases, each holding 3-doz. cans of Foam Shave, move through an automatic case sealer and compression unit and then out through the wall to the warehouse area.

Rigid quality control

As on all its products, Mennen has a crew of sharp-eyed inspectors continually watching the aerosol cans as they pass through the various stages of this line. Any one can may be inspected at as many as five different points along the way:

At a point just after the cans emerge from the filler, a girl takes periodic test weights to make sure that the correct 6¼-oz. portion of soap is being deposited in each of them. Approximately every 15 minutes, she removes four sample cans from the line (one from each head of the filler) and checks them on a scale against the correct weight. She then records any slight variations from the norm.

After their tops have been sealed in place and just before they go into the gassers, the cans pass a second test-weighing point. Here, a girl checks the net weight of the cans—sampling about 2% of them—on a special scale equipped with an automatic



Test bath in water heated to 120 deg. immediately calls attention to any leaks in containers. Girl watches carefully for bubbles escaping from cans. From tank, the cans go through air blower for drying (foreground), then to automatic machines that attach adapter disks and push buttons.

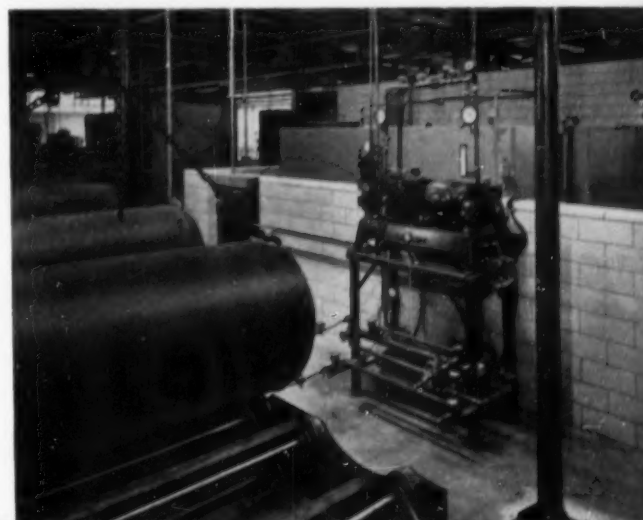
weight calculator. Similar to those in use on other Mennen lines,² this device automatically produces a weight control chart on a moving roll of graph paper and computes average over- or under-weights.

As mentioned above, a full-time inspector keeps a sharp eye on all submerged cans as they pass through the hot-water test bath to spot any leaks.

After its plastic adjuster disk and button have been seated in place by Mennen's new automatic machines, every finished can is closely inspected by [Continued on page 213]

² See "Statistical Robot," *MODERN PACKAGING*, May, 1955, p. 100.

Propellant drums, each holding 2,000 lbs., are emptied by means of two-way system. Turbine-type pump unloads all chemical in liquid state, then compressor takes over to convert any gaseous propellant that remains into liquid form.



'Christmas card' sleeves for cigar boxes

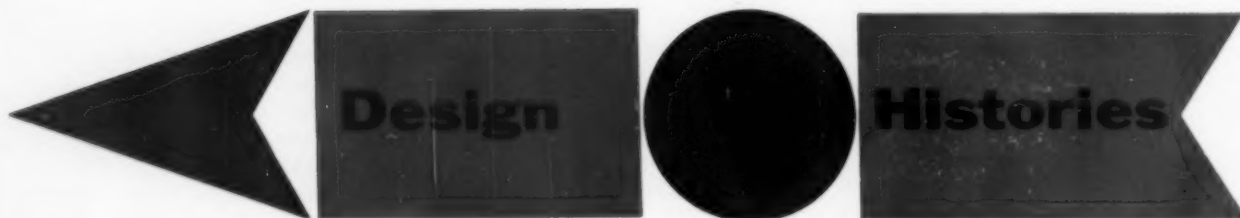


The essential of gift merchandising in ever-wider product fields is indicated by these brightly lithographed paper sleeves used during the holiday season by DWG Cigar Corp. For each brand of cigars, a different "Christmas card" cover was designed, featuring a small logotype of the brand name and an individual holiday motif built around a tree, holly, ornaments, bells, etc.

For conventional simulated-wood cigar boxes, the paper sleeves were shaped to fit the top of the lid, going underneath the cellophane overwrap. Shown here are the holiday covers which DWG used for its San Felice, El Macco, Emerson, Mercantile, R. G. Dun and El Verso cigars.

For cellophane-overwrapped lundles of five or 10 five-packs of cigars, similar sleeves, featuring the same decorative themes, were wrapped around the four sides of the package. Typical wraps shown are El Macco, El Verso and Odin brands.

Credit: Lithographed sleeves designed and produced by Consolidated Lithographing Corp., Carle Place, N. Y.



Pabst's quart-sized cans have snap-off caps



Called "the first new beer can in 20 years," the Pabst Brewing Co.'s new full-quart container has a "Snap-Cap" which can be removed without a can or bottle opener, merely by prying it up with any can rim or other thin-edged implement. The crown has no cork liner, but is equipped with a flowed-in vinyl-rubber compound to give a tight seal and is locked in place by pressure from the side. The can top has only a slight slope with a low-riding cap and the bottom is shaped to permit easy stacking. The flat-top cans were ruled out because, to hold the pressure developed by a quart of beer, such heavy-gauge steel would have been required that the flat tops would have been too difficult to puncture. The new Pabst quarts will be shipped in tear-tape cases designed for floor stacking. Each case contains four single cans and four "Twin-Pak" carry cartons, each having two round holes in the bottom for interlocked stacking.

Credits: Cans by American Can Co., 100 Park Ave., New York 17. Closures by Consolidated Cork Corp., 4012 Second Ave., Brooklyn, N. Y.

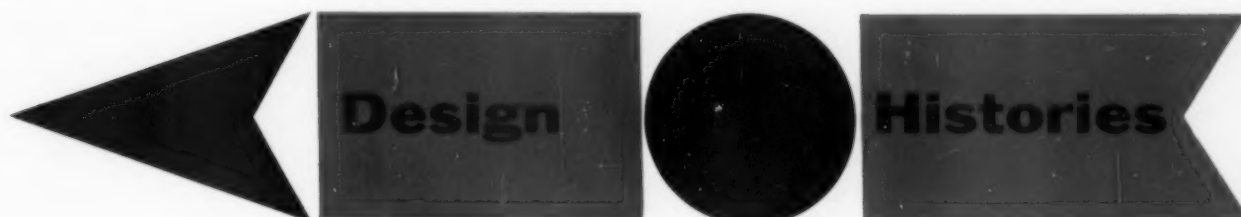
Stick-proof separators

Polyethylene-coated board separators protect the glazed candy fruits which The Mission Pak Co. packs in unusual octagon-shaped corrugated containers. Glazed fruits are liable to become quite sticky. The polyethylene-coated board reportedly was selected for its grease- and moisture-resistant properties, which would prevent the product from sticking to the container or from spoiling its appearance with unsightly stains.

A combination of polyethylene and white patent-coated board stock was found to be most suitable for a food product because of its clean, glossy surface.

The one-piece inserts are used in three different sizes and are die-cut and pre-creased so that they may be folded to form separating walls which divide the outer container into pie-shaped sections. The outer wrap is colorfully printed in a fruit design with an embossed seal. The entire package is overwrapped in acetate film.

Credit: Container by Los Angeles Carton Div., Robert Gair Co., Inc., 155 E. 44 St., New York 17.



Schick's new case looks like leather and silver

A striking electric-shaver case designed for Schick, Inc., is actually produced from coated papers and fabric, yet gives the appearance of leather and metal. The silver finish of the base is achieved by a covering of metal-plated polyester film laminated to pyroxylin-coated paper. This is topped with a three-quarters telescoping cover, which is covered with pyroxylin-coated paper. Saddle stitched by means of a sewing machine, the black cover bears a close resemblance to real leather. The cases are lined with leather-grain pyroxylin-coated paper and pyroxylin-coated fabrics in a bright scarlet color.

Other than the stitching, the only decoration on the outside of the case is the name "Schick" in flowing script letters. The bottom section of the case is also marked with the brand name and holds the shaver, cord and brush snugly.

Credits: Cases by Farrington Mfg. Co., Needham Heights 94, Mass., using pyroxylin-coated papers and fabrics by Farrington Texol Corp., Walpole, Mass., and Du Pont Mylar film metalized by High Vacuum Metals, Inc., Clinton, Mass.



Polyester-film bags protect men's shirts



A tough, almost indestructible package reported to have practically limitless shelf life protects the new line of men's broadcloth shirts recently introduced by Safe-In-Suds, Inc. According to Saul Nirenberg, the company's president, a package was wanted which would have "no breakage, long shelf life, protection against handling and crystal-clear transparency." And only when the extremely strong polyester film was used did all the requirements specified by the company seem to be fulfilled.

Now, shipping cartons containing the new line of Safe-In-Suds "Forum" shirts can be stacked away until needed, it is said, with no danger of the film's drying out, becoming brittle or tearing. Sealed in the back, the bags are almost completely without adornment, giving a perfectly clear view of the shirt. Only the trade name and that of the manufacturer—in gray, black and red—are printed on the bag.

Credits: Bags by Shellmar-Betner Flexible Packaging Div., Continental Can Co., Mt. Vernon, Ohio, using Mylar film by E. I. du Pont de Nemours & Co., Wilmington 98, Del.



Travelogue on wine-bottle labels



Using its brand name to good advantage, the Yosemite Winery Assn. decorates its wine labels with lithographed photographic illustrations of scenes in Yosemite National Park. The California cooperative winery, which bottles a line of sweet and dry wines for national distribution, features a photograph of Vernal Falls on the labels for all bottles of Muscatel, a shot of Mirror Lake on ruby port containers and a view of a Yosemite Park tree in autumn foliage on golden sherry labels.

All three varieties of wine are bottled in (left to right) tenth-gallon, fifth, quart, half-gallon and gallon stock vintage containers.

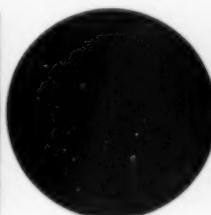
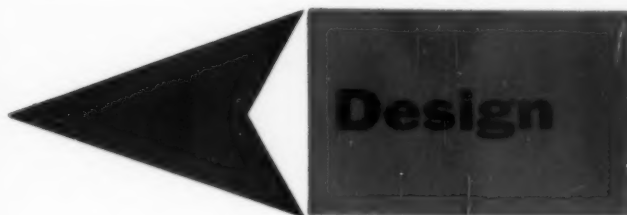
Standard flange-cork closures are secured to the glass containers with cellulose bands.

Credits: Bottles by Glass Containers, Inc. Hayward, Calif. Closures by Crown Cork & Seal Co., Inc., Eastern Ave & Kresson St., Baltimore 24. Labels by H. S. Crocker Co., Inc., 1000 San Mateo Ave., San Bruno, Calif. Cellulose bands by I. F. Schnier Co., Inc., 683 Bryant St., San Francisco 7.

High fashion for beer

Setting its sights on the feminine market, Anheuser-Busch, Inc., has introduced a set of cartons designed to appeal to "the innate preference of women for grace, beauty and style." Basic element in the new packaging is the new "slim" 10-oz. can of Budweiser, which is the same height as the standard 12-oz. container, but smaller in circumference. Six cans are being packed in a carry-home carton decorated with a design featuring two formally gloved hands reaching for a can of Budweiser. The hands are in muted gray on a white mat finish. The rest of the carton's surface is a high-gloss red area in the shape of a bow, with all copy presented in slim lettering. Master cartons of eight six-packs and cases of 24 cans (lower picture) are in natural kraft, with the glove design in solid black and the bows in red.

Credits: Cans by American Can Co., 100 Park Ave., New York. Carry-home cartons by Chicago Carton Co., 4200 S. Crawford Ave., Chicago. Master cartons by American Box Board Co., Grand Rapids 2, Mich.; Gaylord Container Corp., 111 N. Fourth St., St. Louis 2, Mo.; Union Bag & Paper Corp., 233 Broadway, New York 7.



Giant corrugated carton holds 16 lbs. of Tide

Mindful of the growing trend toward larger-sized packages for soaps and detergents, Procter & Gamble has introduced a huge corrugated container that contains 16 lbs. of Tide detergent.

Printed to resemble the smaller-sized cartons of the product, the "home laundry size" has a sturdy built-in handle on top for ease in carrying. The handle is designed to bend over out of the way when not in use and when the package is on display in the store. The detergent itself is packaged in an inner polyethylene bag to protect it against moisture. A corrugated liner is placed inside the bag before it is loaded to keep the bag spread out after a portion of its contents have been removed for use.

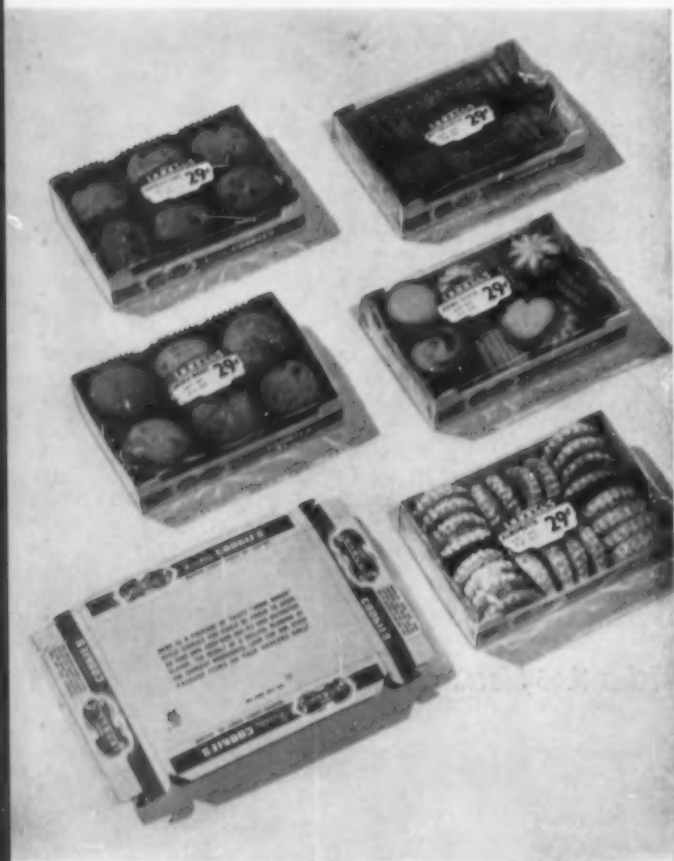
Another new feature is a tear tape around the top to give easy access to the detergent. After it has been zipped open, the top section, including handle, can be used as a lid while the product is stored in the user's home.

Credit: Corrugated cartons by Container Corp. of America, 33 S. Dearborn St., Chicago 3.



Anti-oxidant food board

Lenell cookie trays demonstrate the use of 'stabilized' carton board, with a new chemical impregnant which puts a stop to the development of rancidity



They look the same as before, but these Lenell lock-tab trays now contain an anti-rancidity impregnant which extends shelf life of high-fat cookies a considerably longer time than before. Cellophane overwrap serves to control moisture.

With the adoption of a newly developed type of "stabilized" paperboard in the cellophane-overwrapped trays used for its top-quality line of cookies, the Maurice Lenell Cookie Co., Chicago, has struck a new and perhaps significant blow at one of the oldest and most costly problems faced by many food manufacturers—the development of rancidity within the package.

The paperboard used in the Lenell trays is impregnated with a minute quantity of an invisible, tasteless, odorless chemical which forestalls for some time the oxidation reaction which normally takes place when fat from the product penetrates the board. It is this type of oxidation which produces rancidity, with objectionable odors and tastes. The chemical, which has been ruled acceptable in food packaging by the Food & Drug Administration, was developed by a major petrochemical company and its application to paperboard is the result of three years of work jointly with a leading carton supplier.

On the basis of laboratory and taste tests conducted prior to adoption of the new type of carton-board, it is expected that the already excellent shelf life of the Lenell cookies will be extended well beyond reasonable retail demand.

Inasmuch as the Lenell cookies, due to their high shortening content, are particularly subject to the development of rancidity unless adequate protective measures are taken throughout their packaging, shipping and merchandising cycle, they provide an unusually good demonstration of the effectiveness of stabilized paperboard in food-product packaging.

Although the board is ideally suited to such products as cookies, crackers and cereals, it is also expected to find extensive use in the packaging of ready-prepared mixes for cakes, cookies, muffins, rolls, chocolate and various kinds of candies, baby foods, salted peanuts, potato chips, puffed corn and other chip specialties—in fact, almost any type of dry food product which is relatively high in fat content.

This type of board is applicable primarily to fat-content products having a required shelf life of at least 10 days; it is not required for bakery prod-

ucts, such as doughnuts, cakes, pies, etc., which have a short shelf life in any case.

The impregnated board may be converted into trays, folding cartons, inserts, platforms, separators and other package components as required. The stabilizing treatment does not change the appearance of the board or affect its strength, folding characteristics or other physical properties.

The value of stabilized board in packaging certain types of food products may be appreciated from the fact that small and uncontrollable traces of strong pro-oxidants such as copper, manganese and cobalt are normally present in all paper and paperboards. Accordingly, they are readily available to act as a catalyst and "trigger" an oxidizing process as soon as the oxidizable materials, such as fats and oils, penetrate the cellulose fibres.

Even though the packaged product itself may not become rancid, in all practicability it may be rendered unsuitable for sale, since it readily absorbs the "off" odors of the rancid oils in the packaging medium.

The rate of rancidity development is controlled primarily by the type and amount of oil or grease that penetrates the paperboard, as well as time, temperature, light exposure and other variables. Depending upon the previous packaging method used, rancidity development has been successfully retarded in tests with the new stabilized board so as to extend product shelf life to as much as 10 times the previous normal period.

The mechanism by which the new chemical im-

pregnant works may be described as that of preventing build-up of peroxides in the fat or grease soaked up by the board. Peroxides are undesirable because they set off further oxidation of the fat resulting in rancid smelling and tasting oxidation products.

The impregnant is said to be effective, in this respect, even on uncoated or unlined board, but [Continued on page 202]



Rancidity hazard is customary store method of displaying cookie packages on edge. Cookies and crumbs shift to edge of tray, come into contact with raw edge of otherwise greaseproof board and fat content "wicks" its way in. Presence of new inhibitor chemical in board forestalls oxidation and rancidity that otherwise would develop.

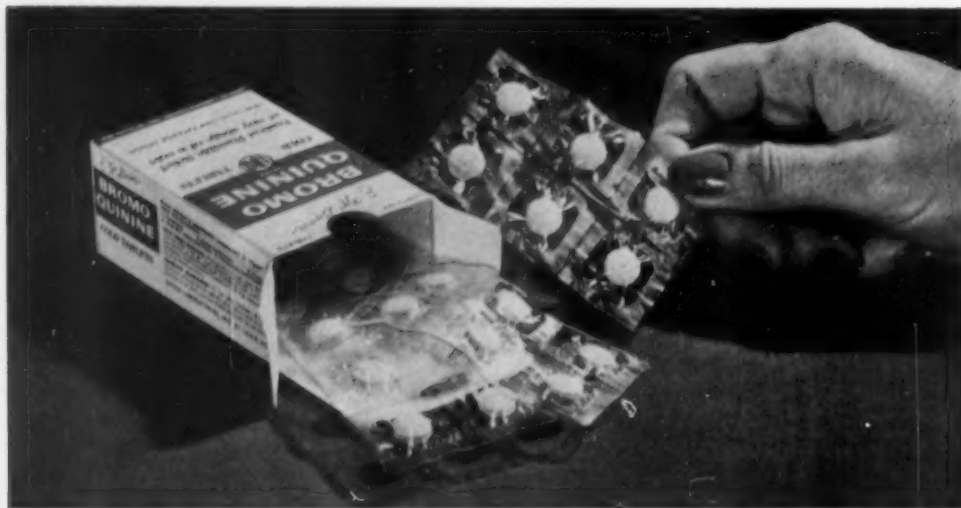
Organolectic tests in carton supplier's research laboratory proved ability of treated board to extend salable life of Lenell cookies. Majority of panel rated cookies in untreated board "slightly rancid" and "off flavor" after two weeks and completely rancid after four weeks. Treated board preserved good odor and fresh taste for eight weeks, when test was discontinued.

PHOTO COURTESY ROBERT CAIR CO.



Super-styled medicines

*Grove's cold tablets are among
the first top-selling proprietary drugs to be packaged
specifically for self-service selling*



Strip packages keep cold tablets sanitary and moisture resistant, are more convenient to use. High-speed machines in Grove Laboratories' own plant seal pills between two layers of cellophane at an 800-per-minute clip and segments of four or six are loaded into new-style folding cartons.

Self-service sales requirements affect every packager, sooner or later. Now it's proprietary drugs. Grove Laboratories, St. Louis, maker of two of the country's largest selling cold tablets, Bromo Quinine and 4 Way, has introduced two of the first packages for this type of product aimed specifically at the supermarket and self-service drug store.

Designed by Grove's own sales and production executives, the packages for the two products, identical in size and style, represent a radical departure from the standard sleeve boxes, which have been used without change for some years. At present, the new packages are designed for self-service selling alone; Bromo Quinine and 4 Way cold tablets which are sold in conventional outlets will continue to be packed as in the past.

Two features of the new supermarket package stand out: the use of heat-sealed cellophane unit packs for individual tablets in a sealed tuck-flap folding carton.

According to Russell A. MacDonnell, vice president in charge of sales, the company had four objectives in developing a package suited to the specialized needs of modern merchandising:

- ▶ Greater display value
- ▶ Better protection for the product
- ▶ Increased safety
- ▶ More convenient use

The familiar regular packages for both Bromo Quinine and 4 Way tablets are identical in size and construction. They consist of a shallow tight-wrapped paperboard tray which slides into a close-fitting sleeve. This sleeve is covered with white paper and printed in either red and black (Bromo Quinine) or red and blue (4 Way). Tray and sleeve are then overwrapped in cellophane.

This makes a neat, compact little package. But it is a package that might easily be lost on the crowded shelf of a supermarket. Grove decided to replace it, in that kind of store, with a much larger

container. The one they chose is a folding carton of unusual design which, Grove believes, combines the advantages of a sealed carton and a tuck-in-flap carton. Its top end uses a double flap arrangement. The top flap is sealed securely, but underneath it a second flap is scored and perforated. By pressing a small thumb opening, the user can open this second flap, then tuck it in again to reclose the carton.

This device eliminates the possibility of pilferage of part of the contents in the store, without making the package difficult to open or close. And, since the cartons are tightly sealed when on display, a cellophane overwrap is no longer needed.

Display value is greatly enhanced by the much larger size of the new packages, which have almost four times the bulk of the conventional ones. The small carton, for example, which holds either twelve 4 Way tablets or 16 Bromo Quinine tablets, is approximately the size of a pack of cigarettes.

Just as important from the standpoint of display in the supermarket is the revised appearance of the package itself. Although the same color schemes are employed, a number of design changes have been made. The amount of copy has been reduced. The type faces have been modernized. And greater emphasis has been given to the brand—it has become larger and (as on almost all successful supermarket packages) it appears prominently on all six surfaces.

Grove's other three packaging objectives—more protection, more safety and more convenience—are achieved, the company believes, by the use of cellophane unit packs for individual tablets. Although this form of packaging has been popular for a long time, it has been employed chiefly in recent years for pharmaceutical samples, with the production usually done by a contract packager.* Grove Laboratories, however, is packaging its own drug products in this manner for quantity sales directly to the consumer.

Sealed into strips of cellophane, the tablets are protected from contamination or moisture absorption. The danger of children taking the pills in quantity is minimized. And a convenience factor is added, since strip packs of four or six tablets may be removed from the package and carried in the pocket or purse.

The cellophane packs are turned out in Grove's own plant on compact, high-speed, strip-packaging machines, each operating at an average speed of 800 per minute. Tablets are poured into hoppers, from which they feed through a vibrating mechanism into four chutes. These send four-abreast columns of tablets into a pair of revolving die rolls, which heat seal them between two webs of cellophane.

*See "Upwring in Unit Packaging," MODERN PACKAGING, Sept., 1953, p. 89.

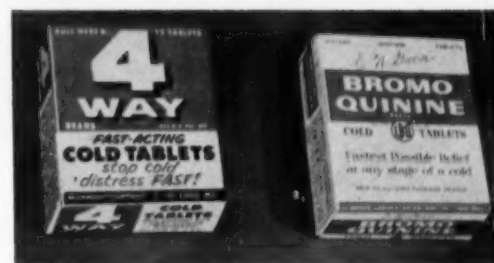
Each tablet is thus sealed on all sides between inch-square layers of transparent film, scored and notched for easy opening. Although the tablets are actually sealed four at a time, a fixed knife splits the strip of four in half. A rotary knife slices off squares of four or rectangles of six tablets from each of these two-tablet-wide strips.

The 4 Way cold tablets are packaged in small cartons which hold three strips of four each, or in [Continued on page 200]

REGULAR



SELF-SERVICE

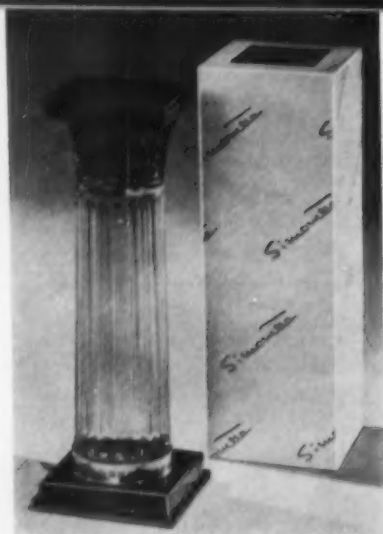


Greater bulk of new 4 Way and Bromo Quinine packages gives added retail display value on self-service shelf, discourages pilferage. New designs feature modernized typography, less clutter, prominent brand name on all six surfaces.



Counter display carton is used to sell both brands of tablets. Note emphasis on convenient uses for new cellophane unit packages.

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2



3



4



5

Modern

Packaging

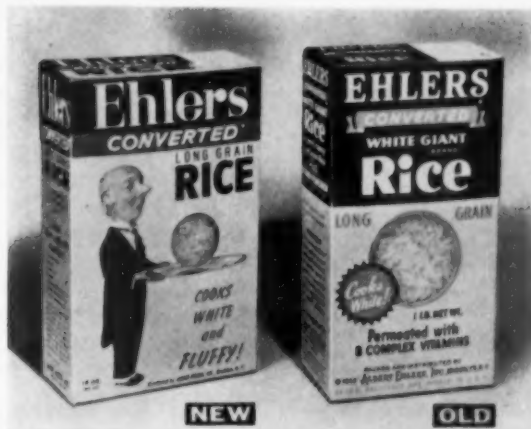
Pageant

- 1 Shaped like a Roman column, bottle and closure symbolize the Italian couturier origin of new Incanto cologne by Simonetta—a package so distinctive in form it can be recognized anywhere. Box cover is stark white with black label and signature reproductions. Bottle, Carr-Lowrey Glass Co., Baltimore. Closure, Mack Molding Co., Wayne, N. J. Carton, Shoup-Owens, Inc., Hoboken, N. J.
- 2 Polyethylene-coated paper pouches, heat sealed on four sides, provide an efficient material for sample packages of Reeno Sales Corp. new Coffee Stain Remover. Pouch, Dobeckmun Co., Cleveland.
- 3 Solution to the problem of storing the unused portion of a package of rolls is Thomas Baking Co.'s paperboard tray with printed instructions to tear

along perforated lines on the bottom and reclose wrapper around unused buns. "Econo-Pak" tray design, Unger Co., Cleveland.

- 4 Three cans or six can be sold in new carry-home pack for Minute Maid frozen orange juice. Perforations in center make it easy to break six-pack in half, like egg carton, if only three cans are wanted. Carton, Old Dominion Box Co., Charlotte, N. C.
- 5 Display versatility is target of new packaging for Pioneer Rubber Co.'s Neoprene household gloves. Polyethylene bags can be hung from hooks (left); counter cartons hold six pairs in individual wrap-around labels with paperboard prop for stand-up display. Bags, Pexco Bag Mfg. Co., Toledo. Wraps and cartons, Carton Service, Inc., Shelby, Ohio.

6



7



8



9



10

Modern

Packaging

Pageant

6 Supercilious butler, easily recognized by viewers of the company's television advertising, now appears on Albert Ehlers, Inc., rice packages. Lithographed in four colors, 14-oz. converted rice carton has round window to show rice balanced on butler's tray. Carton, Container Corp. of America, Chicago. Design, Jack Gardner, New York.

7 Departing from traditional ethical-drug packaging practice, Brace Pharmaceutical, Inc., uses delicate pink and lavender shades and "squared circle" motif to give feminine appeal to new Cerene packages. Polystyrene pill box large enough to hold one day's supply is included in carton. Bottles, Hazel-Atlas Glass Co., Wheeling, W. Va. Closures, Owens-Illinois Glass Co., Toledo. Labels, Equity Press, Inc., New York. Cartons, General Carton Corp., Brooklyn.

8 Key-opening can has replaced friction-lid type for Multi-Purpose Grease sold by Esso Standard Oil Co. With hinged lid for easier reclosure, new lithographed can offers packer more positive seal, possibility of fully automatic packaging.

9 Collapsible aluminum tube holds 1 1/4 oz. of Anahist Co.'s new Super Anahist Rub. Tube, printed in red and blue on white, duplicates design of carton. Tube, Sheffield Tube Corp., New London, Conn. Carton, William W. Fitzhugh, Inc., New York.

10 Folding display cartons for fish bait reportedly increased sales 20% for Day Bait Co. Cartons hold either two jars of wet bait or three containers of dry variety, with headpieces showing happy fisherman. Cartons, Milprint, Inc., Milwaukee.

Double-header vacuum pack

West Coast sausage makers, in joint program, sell sliced meats two packages at a time in easy-opening vacuumized film pouch

A double answer to two problems in the merchandising of vacuum-packaged sliced luncheon meats is being offered by the recently combined sausage manufacturing firms of Poletti Sausage Co., 428 Pacific Ave., and the Golden Gate Salami Co., 304 Davis St., both of San Francisco.

The two solutions consist, first, of an easy-tear opening for a vacuumized, laminated polyethylene-cellophane pouch-type package containing the sliced meat and, second, a windowed folding paperboard overwrap designed to hold and sell two packages at once, with two different meats.

In the first instance, the easy opening helps

the housewife to get at the meat without destroying the package. She is able to tear the package on two sides, to remove the amount of meat she wishes without soiling her hands and to leave the remainder inside the envelope for continued storage in her refrigerator.

In the second instance, the cardboard overwrap serves to "trade up" and sell two products at a single time. The plastic packages are placed inside the board folder, which is then folded twice and locked with a tab in slit. The package labels appear through two windows on the face of the outer package.

Two at a time, Pik-A-Snak vacuum-sealed sliced luncheon meats are sold in wallet-type double-window carton which permits a clear view of the meat.



The outer package is lithographed in red and yellow and shows two housewives pointing at the windows, each with a balloon over her head. One balloon reads: "Keep Refrigerated" and the other "Sliced and Vacuum Packed."

The legend on the face contains the selling copy: "A Double Feature," and in two circles at either of the upper corners of the face: "Economy package" and "Budget Stretcher." On the reverse is the explanation of how easily the package can be opened.

Providing the easy-opening convenience is simply a matter of three tiny nicks in the fin-sealed borders of the film pouch. The cuts, less than $\frac{1}{16}$ in. long, do not impair the efficiency of the heat seal, which is about $\frac{1}{4}$ in. wide. The nicks are positioned by the package manufacturer at each end of a red dotted "tear here" line across the top border of the package and at the base of a similar line running down the right side of the package. Thus, with two tears, the envelope is neatly opened on two sides, making it easy to remove slices as desired and store the remainder.

Printing appears on the reverse side of 300-MSAT-86 cellophane, which appears as the surface ply, laminated to 0.002-in. polyethylene. The printed pouches are supplied to the packager with three sides sealed, the top opening being sealed in the packaging machine after the vacuum is drawn.

Aside from the description of the easy-tear package, in this case called an "E-Z Open Pak," there is no other printing on the envelope. Thus the same case can be used for a variety of meat products. Pressure-sensitive labels are adhered to the faces of the envelopes during the cartoning operation.

To merchandise the Poletti-Golden Gate products, the combined companies have formed a subsidiary known as the Pik-A-Snak Corp. and this [Continued on page 212]



Easy opening on dotted line results from tiny nicks in border seal. Two-color printing is on the reverse side of the cellophane which is laminated to 2-mil polyethylene. Center label giving brand and type of meat is pressure-sensitive adhered, so standard envelopes can be used for all varieties.



Front and back of window carton show how package features are promoted. Usually two different types of meat are enclosed for variety appeal.



Twin machines for vacuumizing and sealing the flexible pouch speed up production. Operator loads one while the other is finishing its cycle. Each of the machines handles four packages at a time.

OWENS-ILLINOIS ASSURES YOU A



Co-ordinated Research

Pure research into formulae and fabrication of glass, packaging research into processing and handling methods in customer plants, and market research into consumer attitudes, add up to great specific value for your packaging dollar.



Engineered Design

The package that takes your product to market must take *three* needs into account. Considerations of its function in the retail store, its operating efficiency and its consumer utility all become a part of the prescription for an Owens-Illinois package.



The Right Container

Facilities at Owens-Illinois are versatile. Talents are varied and many. So you can count on obtaining a container exactly suited to your needs—one that blends salesmaking beauty, product protection and utility in the proportions required to attract customers.

Starch or Detergent—



COMPLETE PACKAGING APPROACH



The Right Closure

Know-how as to the best available liner and closure—best for packing, displaying, or using a specific product—may well be one of the most important single points through which expert packaging counsel will reward you many times over.



Needed Fitments

With emphasis on the word "needed," Owens-Illinois specialists are keenly aware of sales benefits possible through use of plastic shaker and pour-out fitments which are not "gadgets" but which increase consumer satisfaction with your product.



Merchandising Cartons

Modern cartons are developed only through systematic consideration of their opportunity to serve you in the retail store and retail warehouse as well as on your own filling line and in transit. Owens-Illinois is pioneering such developments.

You need a Salespackage...



*one that sells
as well as protects—
and Owens-Illinois
makes it.*

A well-designed and engineered package does more than just hold your product, it helps move it.

Glass can be designed and molded into a wide variety of shapes and sizes. This makes possible distinctive packages that are eye-catchers in the store. And

glass creates *repeat* sales too... because the glass package is easy to open and close, and, *especially* because it affords the convenience of perpetual inventory. Mrs. Housewife always knows how much of your product she has on hand.

Whatever product you produce, Owens-Illinois will help you plan your *salespackage*. This way you can have the services of a marketing-minded supplier with decades of experience in providing glass containers of all types, capacities and designs.

DURAGLAS CONTAINERS
AN **I** PRODUCT

OWENS-ILLINOIS
GENERAL OFFICES • TOLEDO 1, OHIO

Carriage load of girdles

Tying in with an intensive national advertising campaign, Sarong, Inc., has introduced a number of display pieces for its Sarong girdles which use the same illustrations. First ad in the campaign, showing a girl displaying one of the company's products as she hops out of an old-fashioned carriage, has been converted into this effective point-of-sale piece, which holds 24 boxed girdles. The photographically reproduced illustration is on heavy fibreboard and die cut. Silk screening is in black, white and gold. Behind the illustration is a box construction simulating the body of the carriage, in which is fitted a curved horizontal piece of board with 24 square-cut holes. These provide support for two dozen girdles packaged in long rectangular "take-home" cartons standing up on end. The curve of the base causes the boxes to fan out slightly so that the size and girdle style marked on each package can be more easily read. Besides this new carriage display, Sarong is also backing up its ads with large blow-ups, window display pieces and other material.

Credit: Display designed and produced by Prestige Packaging, Inc., 32 E. 20 St., New York 10.

Display

Gallery

Vacuum-formed Gulf salesman is two-faced

A unique double-faced giant head, vacuum formed from sheet vinyl plastic and mounted on lithographed board, is being used by Gulf Oil Corp. to attract viewers both inside and outside of Gulf stations. Facing outward, the concave side is designed to be mounted in a display window. Making use of an age-old optical illusion, the eyes of the display face appear to be following the viewer across an extremely wide angle. This side bears the message, "We Watch Your Every Need," in fluorescent ink.

On the reverse, or convex side (photo at left), a smiling dealer faces customers inside the service station and says, "Thank You! We Appreciate Your Business." Both sides of the display are lithographed with a distorted reproduction of the face, after which the flat sheet of plastic is vacuum formed.

Reportedly, this is one of the first instances where both sides of a vacuum-formed display of this type have been lithographed.

Credits: Design by Heinz Art, 114 E. 32 St., New York 16. Display lithographed by Lutz & Sheinkman, 421 Hudson St., New York 14, and vacuum formed by Borkland Mfg. Co., Marion, Ind.

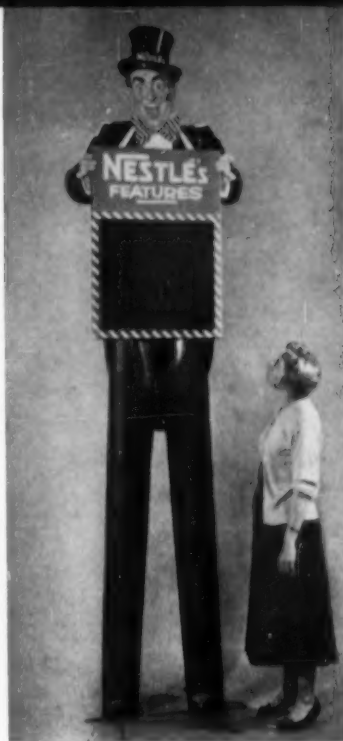
Nestle's stilt-walker

Towering almost 10 ft. in the air, this distinguished spat-wearing, monocled figure is designed to keep an eye out for customers from up above a display of The Nestle Co.'s products. The paperboard, display piece, which is lithographed in full color, is double faced, with the rear identical to the front view.

On both sides, the stilt-walking giant carries a rectangular specially coated "blackboard." This serves a double purpose: a food-store manager can use it to chalk up his own "specials," or he can fit in a poster to advertise a mass sale of one of Nestle's products. Thus the sandwich man can be kept in constant use in the store, even when a special Nestle promotion is not in progress.

The display comes equipped with a set of six different full-color lithographed paper posters, which can be attached to the stilt man, each advertising one of Nestle's products—Semi-Sweet Morsels, Chocolate Bars, Hot Cocoa, Quik, Instant Coffee and Nescafe.

Credit: Display by Einson-Freeman Co., Inc., Starr & Borden Aves., Long Island City 1, N. Y.



Display

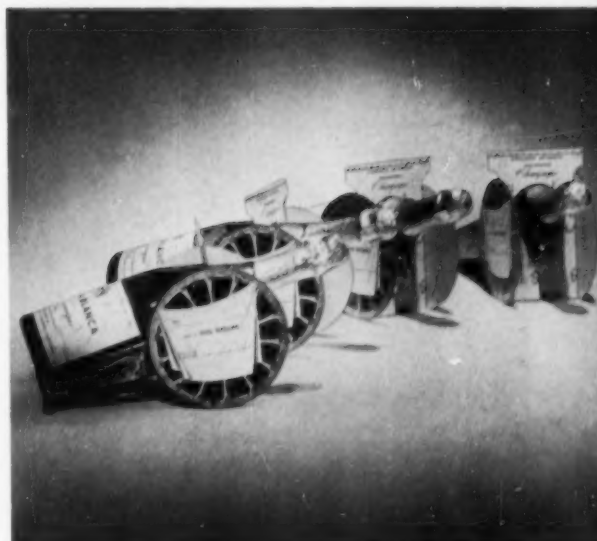
Gallery

French 75s boom champagne sales

This simulated artillery piece with a bottle of champagne as a gun barrel has been developed for the Cresta Blanca Wine Co. Produced from heavy lithographed paperboard, the display is designed to be a replica of the French 75, a cannon made famous in World War I. Appropriately enough, included on the dummy gun are recipes for making two drinks of the same name, the French 75 cocktail and the Tall French 75. Both drinks, naturally, are made with champagne.

The display itself, which was introduced during the holiday season in New York and California, also has a space where an inscription may be inserted if the purchaser wishes to present a bottle of champagne in the "gun" as a gift. For displays, the retailer may assemble a battery of the guns, each of which has a sturdy base to hold the body of a bottle and a round die-cut opening through which the bottle neck protrudes as though lined up in firing position. In this position, the champagne is racked properly with its cork kept moist. For mailing, the cannon folds flat.

Credits: Design by Huntley Soyster, 334 Kearny St., San Francisco 8. Display pieces by Knight-Counihan, 500 Sansome St., San Francisco.



Tube-in-tube

Double metal collapsible tube solves problem of keeping reactive chemicals apart and mixing them only at the moment of use

Believed to be unique in packaging is a double metal collapsible tube—actually a tube within a tube—which has solved a special product problem for Bonded Products, Inc.

Its introduction marks an entirely new approach to the increasingly frequent problem, in this chemical age, of keeping separate the components of a product, yet supplying them in measured quantity in a single package and making possible their mixing just at the moment of use.

In the case of Bonded Products, Inc., the problem arose in connection with its line of Epi-Seal kits, which are used industrially in repairing holes, splits

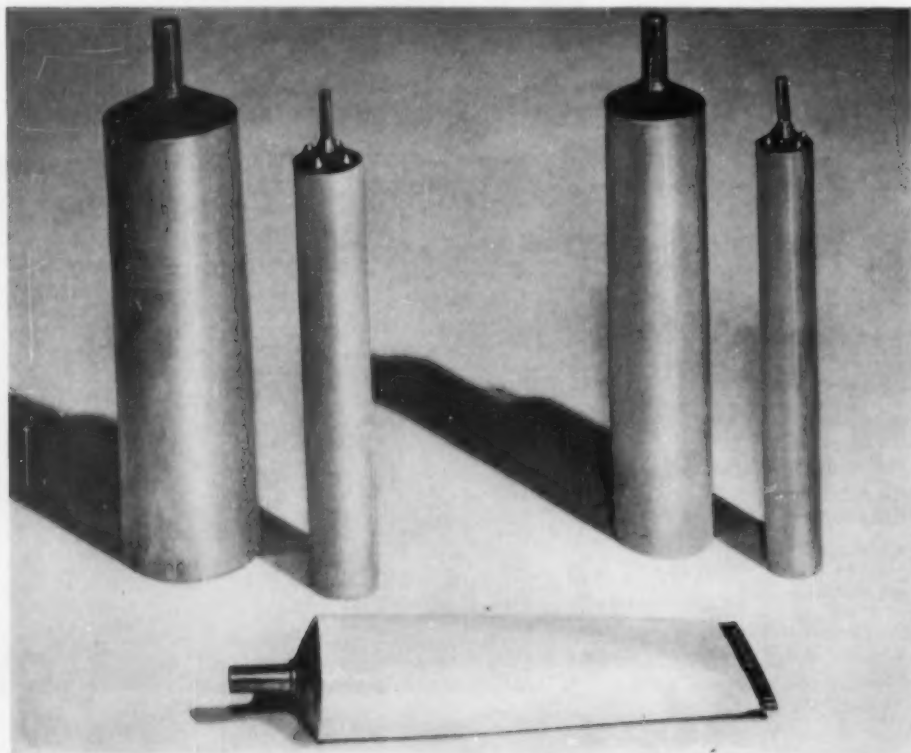
and leaks in piping, fittings, tanks and other metal equipment.

It was necessary to package two chemical components in closely controlled proportionate amounts so that they could be quickly and accurately combined by the user to yield the activated resin used in these repairs.

The solution is illustrated by the tube-in-tube package for the Epi-Seal Universal Repair, the smallest packaged kit made by the company.

This complete kit, designed primarily for industrial use on relatively small repair projects, is packed in a metal-end, spiral-wound paper tube $2\frac{1}{4}$

Construction secret is an outer lead collapsible tube containing epoxy resin into which fits an internal tube containing an activator. When sealed tip is broken off, inner tip also separates from its tube, permitting resin and activator to be discharged simultaneously. Projections on inner tube provide clearance between two containers for resin flow without interference. Illustrated below are the 2- and the 4-oz. units.



Easy to use . . .

in. in diameter and slightly less than 6½ in. long. The wrap-around paper label used on the outer container, printed in black and light green, features two line drawings of the tube-in-tube package on the display panel. Cutting around the label near the top of the tube permits the top to be lifted off.

Included in the package, in addition to the two-compartment lead tube, are a strip of fibrous glass cloth used as a reinforcing material for the metal repairs, a small brush, spatula for stirring the resin, a piece of sandpaper and an instruction folder. The same type of tube-in-tube container is also included in other Epi-Seal repair kits designed for specialized applications.

There are several reasons why this dual-compartment collapsible tube proved to be an ideal solution in packing the principal components of the Epi-Seal kits. Fundamentally, specifications called for a type of package which would not be affected by the chemicals themselves—a requirement which posed no problem for the lead tubes. Secondly, a type of package was needed which would assure that the basic resin (a specially formulated epoxy-type plastic) and its activator would be kept completely separated until time for the material to be used. As long as these ingredients are not mixed, they have a shelf life of several years without deterioration. However, once they are combined, a chemical reaction begins immediately in which considerable heat is generated. The resulting mixture must be used in a few minutes, before the "self-powered" curing and hardening cycle has been completed.

Bonded Products also required a type of container for the resin and activator which would guarantee that the two ingredients were combined in the proper amounts to produce maximum bonding and sealing characteristics in the activated resin. Had the ingredients been supplied packed separately in other types of containers, a small quantity of the materials would have clung to the walls of the package, necessitating scraping and creating the possibility of an improperly formulated mixture.

With the one-shot collapsible tube-in-tube package, the user has only to break off the tip, squeeze and fold down the outer tube until the full contents of both the inner and outer compartments are exhausted. The process is quick, clean and convenient; also, it eliminates the possibility of getting an incorrect mixture.

The tube-in-a-tube is formed simply by inserting one collapsible tube inside another of greater length and diameter. The projecting tip or nozzle of the smaller tube extends deep into that of the outer container. When the rigid outer tip is broken off by finger pressure, the inner nozzle also separates from the tube at the same point, simultaneously



Tips are broken with slight finger pressure.



Exact proportions assured by emptied tube.



Squeezing empties both components at once.



Can top serves as handy mixing container.



Repair kit containing tube-in-tube is for making permanent patches on piping, fittings, tanks and other metal structures. Metal-end composite can, in addition to tube, contains glass cloth, instruction sheet, brush spatula and sandpaper. Can top serves as a mixing container.

breaking the seal on both tubes and permitting the chemicals to be squeezed out. Four small studs of the shoulder of the inner tube maintain a clearance between it and the outer section, permitting resin contained in the larger tube to flow out without interference. Since the resin is white and the activator black in color, it is easy for the user to see both types of products as they are emerging from the opened tube.

A further convenience of the Epi-Seal Universal Repair kit is the top of the composite-type outer container which can be used as a mixing container for the activated resin. This eliminates the need for a separate mixing vessel. Squeezed directly into the removed inverted top of the package, the resin and activator are stirred until a uniform gray color is obtained. This visual indicator shows that the ingredients are fully blended and ready for immediate use.

In addition to the fact that the tube-in-tube unit affords accurate, foolproof combining of resin and activator, and eliminates opening, emptying and scraping of separate containers, this unit also occupies a minimum of space, helping to keep the entire kit sufficiently compact to be placed in an outer package of convenient size. After being emptied, the tube-in-tube is easy to throw away.

At present, Bonded Products is using the tube-in-tube container in two sizes, including the 2-oz. unit which is supplied with the Universal Repair kit and a 4-oz. size which accompanies larger repair kits. The same type of double tube will also be made

available in a size containing 8 oz. of resin and activator.

The Epi-Seal collapsible lead tubes are filled and closed on conventional types of equipment. At the present time, this work is handled by a custom packaging organization. The inner tube, containing the black activator, is folded and sealed at the bottom before resin is introduced into the larger outer tube. Special attention must be given to this closure to assure no leakage and premature mixing of the components prior to actual use.

Thanks to the convenience of the Epi-Seal repair kits, they may be easily carried and used in the field for repairing gas service lines, fire alarm boxes, cast-iron standards for light poles, traffic signals, etc., and other metal structures which would be difficult or costly to repair by other methods—particularly if they necessitated removal of the damaged unit to a welding shop or other type of repair facility. Some of the other Epi-Seal kits make use of the same basic resin and accelerator used in combination with finely divided metal, long fibre reinforcements, etc., for handling specialized types of repairs.

Credits: Tube-in-tube for epoxy resin and activator by Atlantic Mfg. Co., 557 Belmont Ave., Newark 8, N. J. Metal-end composite can for outer package by Round Tube & Cores, 806 N. Peoria St., Chicago. Paper label for outer package by Jonethis-Larson, Jamestown, N. Y. Custom filling and closing of tubes by Chemical Enterprises, 1131 W. Sheridan Rd., Chicago.

Another Prestige Product

Packaged by **BURT**



Slide Box
manufactured for
Grove Laboratories, Inc.
St. Louis, Missouri

F. N. Burt Company Inc. • Manufacturers of Small Set-up Boxes, Folding
Cartons and Transparent Containers • 500-540 Seneca Street, Buffalo 4, New
York • Offices in Principal Cities Or Write Direct • Canadian Division: Dominion
Paper Box Co. Ltd., 469-483 King St. W., Toronto, Canada.

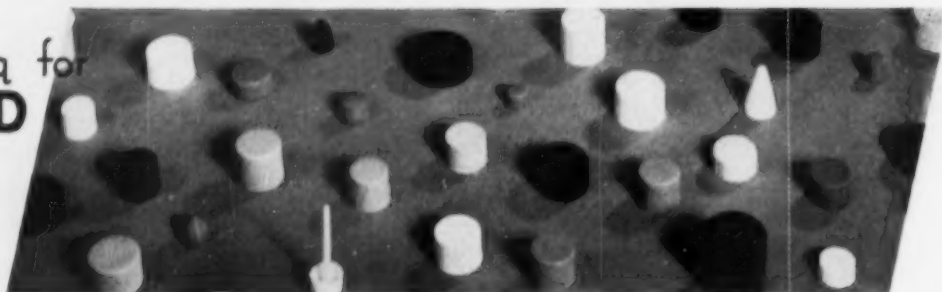
✓ Check Wheeling

- for QUALITY
- for SERVICE

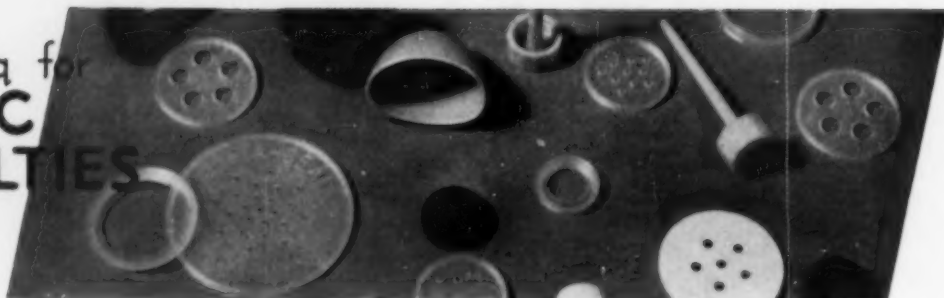
✓ Wheeling for COLLAPSIBLE TUBES



✓ Wheeling for MOLDED CAPS



✓ Wheeling for PLASTIC SPECIALTIES



Engineering Service and Laboratory Analysis Without Obligation

W H E E L I N G

WHEELING



S T A M P I N G C O.

WEST VIRGINIA

Aluminum, Tin and Lead Collapsible Tubes—Molded Tube and Bottle Caps—Plastic Specialties

Consult Your Classified Phone Directory for Sales and Service in These Leading Cities:

New York — Boston — Philadelphia — Chicago — Cleveland — Cincinnati — St. Louis — St. Paul — Los Angeles



1. Polyethylene packaging for Schratz products is made of Visqueen "C" film, made of BAKELITE Brand Polyethylene by Visking Corporation, Terre Haute, Ind.

*How 5 different types of packaging
made of BAKELITE Brand Plastics do the job of...*

Pleasing retailers

Polyethylene film packaging is the way Schratz Products keeps retailers sales-happy.

"There are three very good reasons," says Milton E. Feldman, president, "why our retailers prefer this packaging. First, saleability. Customers see the product and can smell the fragrance. Second, polyethylene bags show off the pastel colors beautifully. Third, shelf life is excellent. They're tough, don't crack, and don't pick up dust. They have practically eliminated returns and markdowns."

(continued)



pleasing retailers

(continued from preceding page)



2. BAKELITE Brand Rigid Vinyl Sheet is used by Plaxall, Inc., Long Island City, N. Y. for this shoe box.

Contents *look* clean because they *are* clean

KRENE Cast Vinyl Film and BAKELITE Brand Rigid Vinyl Sheet do a fine job of letting shoppers see, but not soil merchandise. The box for baby shoes has a deep-drawn cover of rigid sheet—lightweight, strong, transparent. It resists chemicals, oils, discoloration and cracking.

The handkerchief envelope has a full-size

window of sparklingly clear KRENE, unsurpassed in clarity. Its slide fastener runs on a strip of BAKELITE extruded vinyl plastic—easy working, yet tough for long wear.

Both are excellent ways, depending on your products, to keep merchandise fresh and unsoiled, to keep retailers happy.

3. KRENE film package of men's handkerchiefs is made by Anglers Products, Flushing 58, N. Y. The slide fastener by Flexigrip, Inc., N. Y., N. Y., is made with BAKELITE extruded vinyl plastic.



4. Polyethylene-coated-cellophane "Multi-Meat" bags are produced by Dobeckmun Co., Cleveland, Ohio.



Leakproof inner-coating makes wet packaging easy

BAKELITE Polyethylene Resins provide the leak-proof coating on the inside of this cellophane bag. It really pleases retailers to have extra-juicy items such as liver, kidneys, fruit, seafood, packaged this way. The foods are all kept tasty fresh and appealingly visible, as well as being 100% dripless (of special importance to Mrs. Housewife).

The inert polyethylene is impervious to food acids or alkaline juices. The coating doesn't crack, peel or work loose when wrinkled . . . even at minus 70 deg. F . . . and assures an excellent heat-seal.

(continued)

*Ask your
packaging supplier
about . . .*



pleasing retailers

(continued from preceding page)



5. Revlon Shampoo bottle, molded from BAKELITE Polyethylene.

Soft bottles sell shampoo and safety

Polyethylene sells shampoo with a big plus in this bottle molded of BAKELITE Brand Polyethylene. Its finely-ribbed surface and flexible sides look good, feel good. They give a sure grip to busy, sudsy hands. Even if it does fall, this bottle won't break and shatter on the bathroom floor.

Naturally, this pleases customers, boosts sales, and makes retailers happy. To see some of the many ways to please them with packaging made of BAKELITE Plastics and Resins write Dept. MO-105 for "1956 Guide to Improved Packaging."

*first in the world
of plastics...*



BAKELITE COMPANY, A Division of Union Carbide and Carbon Corporation **UCC** 30 East 42nd Street, New York 17, N. Y.

The terms BAKELITE, KRENE, and the Trefoil Symbol are registered trade-marks of UCC.

A new polymer-coated cellophane

*With weight held to 300 gauge, it
offers outstanding appearance and stability, plus
high grease, moisture, gas and odor resistance*

By Edward Hartshorne
and L. E. Simerl†*

Cellophane has achieved its dominant position in the field of transparent packaging because it affords positive product protection and sales appeal, and at the same time runs well on high-speed converting and packaging machinery. A whole family of cellophanes has been developed for specific packaging applications.

The demand for all types of cellophane has paralleled the phenomenal growth of the packaging industry. The increase in consumption every year is

due to the increase in population, to the higher standard of living and to the self-service principle in food supermarkets and other stores. From the packaging standpoint, the supermarket can be said to have been made possible by an adequate supply of low-cost transparent packaging film, which permits self selection and therefore reduces selling cost.

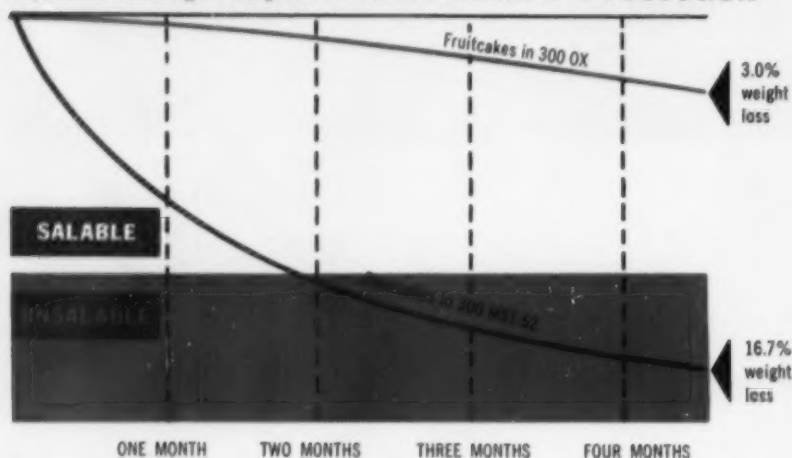
Cellophane has excellent protective properties, but under certain conditions it has some limitations, as every large user knows. The MST and MSAT types are made from a regenerated cellulose base sheet to which has been applied a coating of nitrocellulose

*Manager, Research and Development Department, and †Chief, Development Section, Research and Development Department, Film Division, Olin Mathieson Chemical Corp., New Haven, Conn.

1. Contrast in moisture and texture of two fruit cakes. One at left, wrapped in ordinary MST-52 cellophane, is hard, dry and unsalable after two months. Cake at right is moist and soft after six months in new OX-type, polymer-coated cellophane.



Laboratory Report on Moisture Protection



2. Curve shows progressive deterioration of fruit cake in conventional 300 MST-52 cellophane, as contrasted with retention of moisture and shelf life in 300 OX-type cellophane. Both cakes were kept at 75 deg. F., 35% R.H.

lacquer. A thin layer of wax provides water-vapor protection. These films are excellent for many purposes and, in actual practice, the packaging protection provided is competitive with that of such homogeneous films as 1½-mil polyethylene. On the other hand, the protective qualities of MST coatings on cellophane are lessened by creasing and the solvent action of inks, fats and oils.

Table 1: Summary of properties of OX-511 cellophane

1. Gauge	300
2. Specific gravity	1.5
3. Area factor	19,500 sq. in./lb.
4. Heat-sealing temperature	Range 250-360 deg. F.*
5. Heat-seal strength	High, compared with standard cellophanes
6. Clarity	Outstanding transparency and sparkle
7. Dimensional stability	Better, compared to standard cellophanes
8. Water-vapor permeability	Outstandingly low, compared with standard cellophanes in actual product tests. Printing, creasing and contact with fats, greases and oils have little effect
9. Oxygen permeability	Low, compared with standard cellophanes
10. Odor resistance	High, compared with standard cellophanes
11. Grease resistance	Excellent
12. Printability	Excellent

*The sealing temperature is approximately 25 deg. F. higher than that of MST types under the same machine conditions of time and pressure.

The first major stride to improve further an excellent packaging material has been the development of polymer coatings. Polymer coatings have been available for several years in one type of 450 gauge (1)¹. The contribution of Olin Mathieson has been the successful production of a new type, with all the inherent advantages, at 300 gauge and consequent lower packaging cost. The first of the series, OX-500, was made commercially from May, 1953, until July, 1955. It has been replaced by an improved coating formula, OX-511.

The protective and appearance advantages of polymer coated over MST films have been increased in OX-511. It has been field tested in customer plants and packaging performance proves its superiority.

¹Numbers in parentheses identify References appended.

Table II: Per cent weight increase of typical products under high humidity conditions

(80 deg. F.—80% R. H.)

Package type	Duration of test, days	MST-52	MST-53	OX
Puffed rice bag	73	—	6.6	3.4
Dried lima beans bag	83	—	3.7	1.0
Dried figs overwrap	60	3.7	—	0.4
Cough drops Box overwrap	126	7.7	—	4.0

Table III: Per cent weight loss of typical products under low humidity conditions

(75 deg. F.—17% R.H.)

	Package type	Duration of test, days	MST-51	MST-52	MST-54	OX
Dessert shells	U-board overwrap	20	6.5	—	—	1.6
Marshmallows	Tray overwrap	73	—	—	7.5	5.2
Fruit cake	Direct wrap	136	—	18.0	—	4.1
Pound cake	Direct wrap	11	—	3.1	—	0.6

OX-511 is a premium product and, although the available quantity of this film is increasing, it will continue to be seriously limited for some time to come. The available tonnage is being used on food and other products which require special protection, but the list of potential users is expanding rapidly and new uses are being explored. The more important functional properties of OX-511 are summarized in Table I. The increased packaging protection and the merchandising advantages due to improved appearance will be discussed in detail later, with supporting data.

Water-vapor permeability

This is the single most important property which a packaging film must have, and keep, during the converting and packaging operations and during the total useful life of the package. The films with low water-vapor permeability protect dry foods from absorbing water from outside high humidity and prevent moist foods from drying out.

OX films are outstanding in water-vapor protection under actual use conditions with typical food products.

First, the protection of dry foods in humid climates is shown in Table II. Second, the protection of moist foods against the dehydrating effect of a very dry climate is shown in Table III.

The extra protection provided by OX film on fruit cake is shown by the graph, Fig. 2. This is a high-moisture and high-fat-content product, containing spices and brandy. The polymer coating is unaffected by the fat, water vapor, flavors and brandy. The retention of moisture, softness and texture is illustrated in the photograph shown as Fig. 1.

The water-vapor permeability of OX film has been determined by a series of laboratory tests, but none demonstrate the advantage as well as the actual food packaging. All of the laboratory test methods show that MST films have lower water-vapor permeability on flat sheets. This is reversed sharply, however, on creased samples and in actual packaging. The laboratory data on OX and several MST films are given in Table IV, by the standard Tappi procedure, with added creasing and oil treatment.

Table IV: Water-vapor permeability of cellophanes

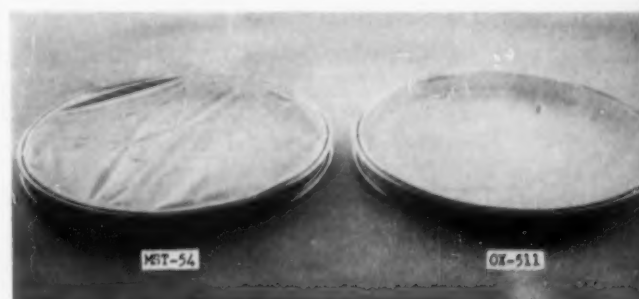
(Tappi Std. g./sq. m./24 hrs. at 100 deg. F.—90% R.H.)

	OX	MST-51	MST-52	MST-53	MST-54
Flat	12	7.5	7.6	8.3	4.8
Creased	14	34	57	60	55
Oil rubbed (corn oil one side)	9.7	44	67	110	56
Oil rubbed (corn oil both sides)	9.2	1000	1100	860	1200

The Tappi values on flat sheets are actually higher on OX film than on MST, but the creased data show the inherent toughness of the polymer coating. The effect of oil will be discussed in detail.

Grease resistance

The resistance of a packaging film to attack by fats, greases and oils is an important feature to be considered in selection of a film for contact with some foods. It is in this field that the OX series has found its initial usefulness, with high-shortening-content bakery products, for example. Some packaging ma-



3. Dimensional stability of the new OX-type cellophane is illustrated, in contrast with regular MST-54, by two samples clamped in aluminum rings, shown after one day at 75 deg. F. and 35% R.H.; two days at 75 deg. F. and 81% R.H., and two days at 75 deg. F. and 15% R.H.

Table V: Odor resistance of packaging films

(Hours required to pass through)

Odor	Polyethylene (2 mil)	MST-53	OX
Vanilla	0.07	5	7
Clove	0.03	9	11
Vinegar	0.07	10	10
Onion	0.03	4	33

(Test procedure: Small cellulose sponges are wet with the liquid, placed in open cups and heat sealed in cellophane pouches. Sliced onion and ground clove are placed directly in cups. Test assemblies are placed in pint Mason jars, held at 75 deg. F., and opened periodically to sniff. Time reported is that to first detectable odor.)

terials actually permit fatty materials to soak through their entire thickness. The regenerated-cellulose base of cellophane is an excellent grease barrier, but the MST coating is adversely affected and the water-vapor protection may be decreased. An extreme case is shown in Table IV, in which corn oil is rubbed on flat samples before testing. The one-side-treated MST samples are damaged, while the two-side-treated film is destroyed as a protective film. It should be remembered that contact with fats and oils in actual packaging is not necessarily continuous and is usually confined to one side.

Another good example of this effect has already been illustrated in the packaging of fruit cake (Figs. 1 and 2). The high shortening content of this bakery product calls for protection of the type furnished by OX.

OX cellophane, when placed in direct contact with corn oil, hydrogenated shortening, shredded coconut, lard and peanut butter showed no penetration by the fats after 24 hrs. at 100 deg. F. It is concluded that the natural resistance of regenerated cellulose to fats is increased by the polymer coating and that the combination is a very effective one.

Odor resistance

Standard MST cellophanes have excellent resistance to odors, based on the inherent impermeability of the regenerated cellulose. To this resistance is added that of two layers of polymer in OX films,

Table VI: Oxygen permeability of packaging films

(ml./sq. m./24 hrs./atm. 75 deg. F. — 52% R.H.)

OX	430
MST-53	850
MST-54	1400
1.5-mil polyethylene	6700

(Method of Landrock and Proctor (2))

resulting in a new level of protection. This odor resistance works two ways: first, valuable flavors are retained (spices and brandy in the fruit cake); and second, undesirable odors are kept out (onion and soap, for example).

The data in Table V show the odor resistance of OX compared to other films.

Oxygen permeability

Oxygen is an adverse factor in the protection of many foods and elimination of oxygen has led to the development of a special field of packaging. Foods which lose flavor, or develop oxidized (rancid) off flavors, may be packaged in cans or in laminated bags, under vacuum or inert gas. Cellophane has an excellent oxygen resistance when dry and to this has been added the polymer coating for a higher level of protection. In general, oxygen permeability is a guide to the permeability of other gases (carbon dioxide, nitrogen, organic odors) and the odor resistance of OX film is confirmed by data in Table VI.

These new cellophanes have found acceptance as a component of laminating used for vacuum and gas packaging, but are not recommended alone. The functional properties of films used for vacuum packaging—oxygen resistance, heat seal and durability—are found only in relatively heavy laminations.

Appearance

Cellophane has grown to its present stature because of a highly attractive appearance which, in turn, enhances the sales appeal of food and other products. It is perfectly clear, with flawless transparency; has a surface "sparkle," and maintains this appearance on the package. To this standard cellophane level of quality, the OX family adds several additional features. The grease resistance eliminates cockle and surface damage due to food fats and oils. The water-vapor protection which OX provides for foods also gives internal protection, reducing loss of plasticizers and moisture content of the regenerated cellulose base. This, in turn, increases the dimensional stability, which is important enough to justify a separate section.

Dimensional stability

The dimensional stability of packaging films is important from the viewpoint of both package appearance and converting operations. The appearance defects which may appear with aging of a bag, overwrap or window in a carton include wrinkling, curl, striations and cockle. A carton with overwrap or window may be distorted by the tension produced with film shrinkage, or the film may be broken by a sharp package corner.

Changes in relative humidity of the storage atmosphere constitute the major influence on dimensional stability of films. The resistance to the passage of water vapor which makes OX polymer coatings so outstanding under actual "use" conditions also aids in maintaining the original moisture content of the base cellophane sheet. This is important, for changes in the moisture content of the base sheet are always reflected by changes in the dimensions of the film. OX films display superior dimensional stability on almost every product for which they have been used. For example, tests with dried beans and dry cereal at 75 deg. F. and 17% R.H. showed a considerable shrinkage of MST bags, with the seams eventually splitting open. OX bags showed practically no evidence of shrinkage.

The magnitude of the changes involved are demonstrated by a drastic cycling procedure, with extremes of relative humidity. The per cent change in dimensions of a 17-by-17-in. sheet are given in Table VII.

The appearance advantage is demonstrated in the photograph shown as Fig. 3. Cellophane was held in aluminum frames for one day at 75 deg. F. and 35% R.H., two days at 75 deg. F. and 81% R.H., and then two days at 75 deg. F. and 15% R.H. The picture shows distortion and wrinkles in the MST film, while the OX-511 remains flat.

Heat seal

Cellophane used in most packaging applications must have sufficient heat-seal strength to permit the package to stand up well under normal conditions of usage, with some additional margin of strength for occasional severe conditions.

While the heat-seal strengths of standard cellophanes are generally perfectly satisfactory, OX films are characterized by excellent heat-seal strength. It should be noted that OX types require a higher heat-sealing temperature than MST (approximately

Table VII: Dimensional stability of cellophanes

(Per cent decrease in dimensions of 17-by-17-in. sheets)

	Machine direction	Transverse direction
OX	2.7	1.5
MST-53	3.5	2.3
MST-54	3.0	3.3
(Conditioning cycle)		
75 deg. F.—35% R.H.	three days	
75 deg. F.—81% R.H.	two days	
75 deg. F.—15% R.H.	three days	
75 deg. F.—35% R.H.	three days	

Table VIII: Products packaged successfully in OX films

Fruit, spice and pound cake	Peanuts and peanut brittle
Cookies	Marshmallows, jelly beans and
Special breads	chocolate candy
Cake mix	Hard candy and cough drops
Fig bars	Paper products
Dried fruit, beans and cereals	

300 deg. F. instead of 265 deg. F.) at the same conditions.

Most packaging equipment encountered in the field is equipped to provide the additional heat. On occasion, installation of additional heating units, or of units with greater capacity, is required.

Converting and packaging machinery

Printing on OX films has been very satisfactory on runs in a few large converting plants. There was some difficulty with OX-500, but this problem has been solved with the cooperation of ink manufacturers and printers.

The printed film retains its appearance, sparkle and water-vapor protection. There is no loss of moisture or plasticizer from the cellophane and, therefore, no necessity of adding moisture in a reconditioning unit.

Satisfactory adhesives have been developed by the adhesive manufacturers in a parallel cooperative program.

As in printing, there were some problems on experimental films, but both emulsion and solvent adhesives are now available.

Packaging-machine operations also had some early growing pains, which have been eliminated. The use of Teflon coatings and silicone lubricants on heating bars has been very effective.

Suggested applications

OX films have been used successfully on many products. They are particularly recommended for:

1. Moist products distributed in dry climates.
2. Dry products distributed in humid climates.
3. High-shortening-content items that normally impair package appearance, such as dessert shells, pound cake, shortbread cookies.
4. Highly aromatic products where aroma and flavor retention is desirable, such as spice and fruit cake, and highly flavored cookies.
5. Overwraps and packages where clarity, brilliance and dimensional stability are important.

[Continued on page 201]

Cushion sorption

Ordnance investigates water sorbed by cellulosic cushioning materials used in desiccated (Method II) packs and the influence on the sorptive capacity of desiccants.

*By Harold M. Weiner**

Cellulosic cushioning materials are frequently used to cushion items with sharp corners, edges, etc., when these items are packed in desiccated packages (1, 2)†. In some instances the desiccant, in its bag, is wrapped in the cushioning material because of space limitations. Such a situation is illustrated by a Method II C pack (Par. 2—43, TM 38—230) (2). Since the amount of water vapor sorbed by the desiccant is frequently used to measure the efficiency of the barrier material, this investigation was initiated to determine if the cushioning material, through which the water vapor must pass, influences the amount of water vapor sorbed by the desiccant. To make this determination, several typical cellulosic cushioning materials under Spec. UU-C-843 (3) were evaluated as described below (see Table I).

Table II shows the gain in weight of several cushioning materials and of silica gel desiccant when exposed to 95% relative humidity at 100 deg. F. as described in "Experimental Procedure," Paragraph 8.

Table III shows the gain in weight of several cushioning materials without silica gel desiccant when exposed to 95% relative humidity at 100 deg. F. as described in "Experimental Procedure," Paragraph 9.

Examination of Table II shows that, with one exception (Material No. 5), the amount of water vapor picked up by the cushioning materials is independent of the type of material, even though Spec. UU-C-843 classifies these materials on the basis of water absorbency. The weight gain ranges from 3.4% to 4.5% (excluding the anomalous results obtained for Material No. 5), with average values by type being:

Type I—3.8%

Type II—3.7%

Type III—4.3%

These values show no significant difference. Closer inspection of Spec. UU-C-843 reveals that this classification is based on absorbency when the ma-

terial is immersed in liquid water, while the conditions of this investigation were established to determine sorption of water vapor. Since two different types of phenomena are involved (e.g., sorption as by a sponge versus sorption on a surface), it is not surprising that no relation should exist between results obtained using a liquid immersion test and a vapor retention test.

Examining Table III, one finds again that no significant difference in water sorption exists among the several materials tested, the range of values

Table I: Materials tested

Material No.	Trade name	Manufacturer	Type* spec. UU-C-843
1	Kimpac, Type 201	Kimberly-Clark Corp.	I
2	Tufflex Cargo-Pak	Wood Conversion Co.	I
3	Celluliner, T2S	Gilman Bros. Co.	I
4	Tufflex Cargo-Pak	Wood Conversion Co.	II
5	Kimpac, Type 500	Kimberly-Clark Corp.	III
6	Tufflex Cargo-Pak	Wood Conversion Co.	III
7	Celluliner T2S	Gilman Bros. Co.	III

*Type I is defined as "Non-water-resistant, absorbent."

Type II is defined as "Water-resistant, partially absorbent."

Type III is defined as "Water-resistant, non-absorbent."

Table II: Gain in weight of cushioning materials and desiccant at 95% RH, 100 deg. F.

Material No.	Gain in weight of cushioning material, %	Gain in weight of silica gel, %	Gain in weight of system, %	Gain in weight of cushioning material ÷ gain in weight of system, %
1	4.5	17.5	22.0	20.5
2	3.6	16.2	19.8	18.2
3	3.4	15.0	18.4	18.5
4	3.7	16.0	19.7	18.8
5	0.4	19.9	20.3	—
6	4.0	15.6	19.6	20.4
7	4.5	17.6	22.1	20.4
				19.5

*Ordnance Corps; Picatinny Arsenal; Dover, N. J.; Technical Report 2141; Ordnance Project TB4-672; Dept. of the Army Project 591-07-001.
†Numbers in parentheses identify References appended.



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YOU CAN SEE for yourself why Beech-Nut chose the clear "showcase" brilliance of Olin Cellophane for their seven new gum cartons.

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a packaging decision
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1. Assembly for cushioning material in the desiccant test. Enough 2.5-in.-diameter circles to form a circle 1 in. thick were cut from cushioning material and placed over the silica gel.

being from 0.2% to 0.8% with a breakdown by types as follows:

Type I—0.4%

Type II—0.5%

Type III—0.3%

An interesting comparison can now be made between water vapor pick-up with and without a desiccant. Such a comparison is given in Table IV, which shows the ratio of water vapor pick-up when a desiccant is placed on the opposite side of the cushioning material from the source of water vapor to the water vapor pick-up when no desiccant is used. In all cases, the pick-up under the former condition is higher, averaging 10.9 times as much. The explanation for this difference can be attributed to the vapor pressure differential set up by the silica gel behind the cushioning material. The silica gel produces, in effect, a relative humidity of only a few per cent on one side of the cushioning material, while on the opposite side of the cushioning material there exists a relative humidity of 90-95%. This

Table III: Gain in weight of cushioning materials without desiccant

Material No.	Gain in weight of cushioning material, %
1	0.2
2	0.8
3	0.2
4	0.5
5	0.2
6	0.5
7	0.3

Table IV: Comparison of water vapor pick-up with and without desiccant

Material No.	% pick-up with desiccant ÷ % pick-up without desiccant
1	22.5
2	4.5
3	17.0
4	7.4
5	2.0
6	8.0
7	15.0
Average	10.9

difference in relative humidity establishes a vapor pressure differential of about 43 mm. of mercury which "drives" the water vapor into the cushioning material and silica gel until equilibrium is reached. Thus, a greater quantity of water vapor is forced into the cushioning material. When the desiccant is absent, however, the water vapor penetrates the cushioning material by an ordinary diffusion process. Saturation is then reached in a much faster time (average of five days as opposed to an average of 15 days) and less water vapor is forced onto the surface of the cushioning material.

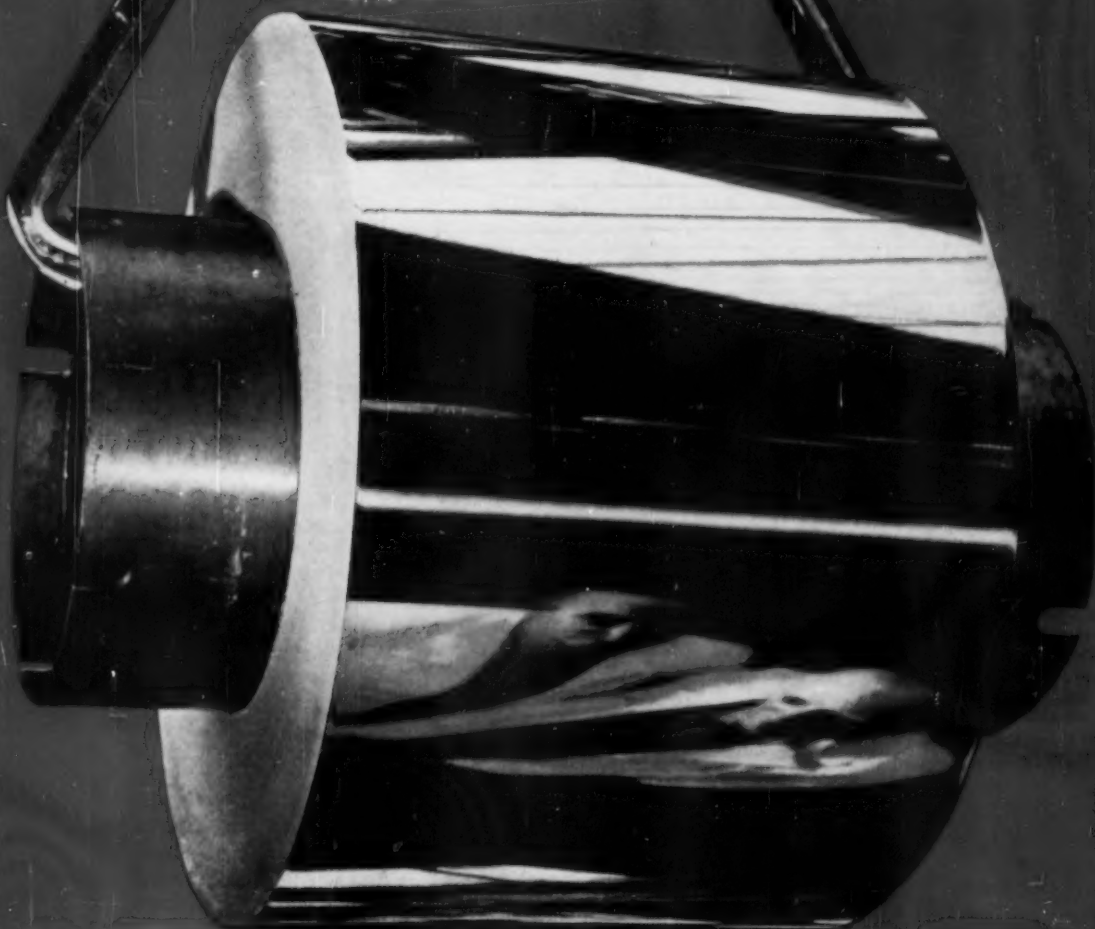
Further study of the data in Table II shows that, of the over-all gain in weight of the cushioning material-silica gel system, an average of 19.5% is attributable to the cushioning material. This is summarized in Column 5 of the table, which represents Column 2 divided by Column 4 x 100 for each material, except Material No. 5, which exhibited an unusually low water vapor pick-up. The inference to be drawn from these data is that such a system should not be used when silica gel is being employed to determine the amount of water vapor penetrating a test package, since approximately 20% of the total water vapor entering the package is not measured.

Experimental procedure

Approximately 150 gms. of silica gel (Class 1, Spec. MIL-D-3464A; Desiccants, Activated for Static Dehumidification and Packaging) were activated by drying in an oven maintained at 135 deg. C. The drying process was continued, with weighings at 24-hr. intervals, until two successive weighings agreed to the nearest 0.1 gram. The dried, activated desiccant was then accurately weighed in a tared 250-ml. Pyrex beaker and enough 2.5-in.-diameter circles to form a layer 1-in. thick was cut from the cushioning material and placed over the silica gel. To hold the circles in place, a 5-by-5-in. piece of cushioning material was placed over the

[Continued on page 210]

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Q Questions & A Answers

This consultation service on packaging subjects is at your command. Simply address your questions to Technical Editor, Modern Packaging, 575 Madison Ave., New York 22, N. Y. Your name or other identification will not appear with any published answer.

Reclosable polyethylene bag

Q. Can you suggest a method or a machine to make a peelable polyethylene heat seal?

We should like very much to use a polyethylene film bag for one of our products, but the bag must be opened and closed many times during the use of the product. If we make a heat-seal closure, then the bag must be cut open and most users do this so carelessly that the product is spilled and the bag cannot be reclosed.

Your assistance in helping us solve this problem will be very greatly appreciated.

A. Polyethylene film requires special attention and good controls to effect a good welded heat seal because of its narrow sealing-temperature range. It would be impossible commercially to seal the closure of a polyethylene bag to get a reliable and satisfactory seal that could be peeled to open.

One answer to your problem would be to use pressure-sensitive tape or a heat-sealable, resin-coated paper over the folded-down top of the bag. The tape or heat-sealable paper could be colored or printed and would be easy to peel off for opening. However, this method of sealing may not lend itself to repeated reclosures.

For both easy opening and multiple reclosures, the best answer is a so-called wire tie which can be attached to the bag top by the manufacturer and which can be quickly and easily opened and reclosed. There are many types and constructions of bag ties of this kind and your bag maker can supply you with samples and costs.

Durable foil-paper adhesive

Q. One of our packages uses a printed laminated paper and foil

band which is put on in a special way by a machine we designed and built. We use a starch-base aqueous adhesive to adhere this band to the carton and the results have proved to be excellent.

However, when we use this same adhesive to overlap the band at the carton closure, we often get poor seals and lifting of the band. How can we be sure of strong and durable seals between the foil and the paper at the overlap?

Any suggestions that you may be able to offer in overcoming this difficulty will certainly be most helpful to us.

A. The fact that you can sometimes make good seals with your present adhesive would indicate that it can be effective but that unknown factors can cause it to fail. If your machine does or can be easily changed to apply a special adhesive at the overlap, this should be done. Then contact your adhesive supplier and try samples of the various adhesives he suggests for sealing foil to paper. There are many cases where a separate adhesive must be used to secure rapid and strong adhesion at the overlap of labels and wrappers which are laminated or coated.

If for any reason you cannot use a separate lap adhesive, then the problem is to find the factors that prevent the body adhesive from working consistently.

Aqueous adhesives will not adhere well to many types of inks or print varnishes, so that the band should have no printing or varnish in the overlap area. Also, some printing has a waxy anti-offset spray which could cause failure of an aqueous adhesive. Then, too, the amount of adhesive should be controlled at the overlap, because excess moisture cannot be absorbed between the foil layers and the adhesive may require an excessively long time to

set enough to be handled and put into the shipping case.

The control of these factors would be desirable whether you use a special adhesive or the one which you regularly use.

Kraft-polyethylene for liquids

Q. Would it be possible to employ kraft board with a 1-mil polyethylene lining for the packaging of milk and other liquid foods? The polyethylene lining would be heat sealed and prevent contact of the board with the milk. Would such a construction be useful for other liquids?

A. The general construction you have suggested could be made into an effective carrier for many fluids, including milk. Polyethylene either as a film or as a coating on paperboard is entirely waterproof, odorless and tasteless and makes strong heat seals. However, there are other resins and films that would also perform effectively as liquid-barrier packages.

As a matter of fact, there are two milk packages now in use that use resins as coatings on paperboard for the packaging of milk. However, there is no knowledge of a consumer liquid-holding package using polyethylene or any other plastic film as an unattached liner in a paper box.

There are many factors to be considered in the construction and composition of a paper and resin package for liquids. Most resins and films are effective barriers to water, but must be carefully tested when oils, solvents and other chemicals are to be packaged. Most liquid food products require consideration of contamination both chemically and bacteriologically and also use factors such as opening, pouring and reclosure must be considered.



Film of **ALATHON**... combines durability with superior transparency

Film of "Alathon"
Manufactured by Deerfield Plastics,
South Deerfield, Massachusetts;
supplied to Swiss Cleansing Co.
by Pierson Associates, Boston

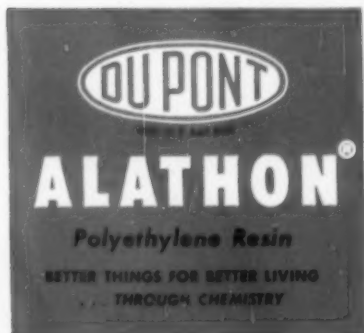
Typical of the many packagers using film made of "Alathon" polyethylene resin is the Swiss Cleansing Company, Providence, Rhode Island. The largest dry-cleaning plant in New England, Swiss has built its business on customer satisfaction. Here's what Swiss has to say about film of "Alathon" for cleansed garments:

"We picked Du Pont 'Alathon' for our packaging, because it gives sure protection together with visibility and a distinctive appearance, which complement the fine quality of our cleansing. A pack-

aging of 'Alathon' always presents a fresh, unmussed look, which adds materially to customer's satisfaction. Customers are also pleased to have these envelopes for other uses in the home after garments are removed."

Film of "Alathon" is made from resin specially compounded by Du Pont to combine durability with an unusually high degree of transparency. For complete details on how to give your own product an eye-appealing showcase of "Alathon," mail the coupon below.

*There is a difference in polyethylene resins — specify **ALATHON** for your packaging needs*



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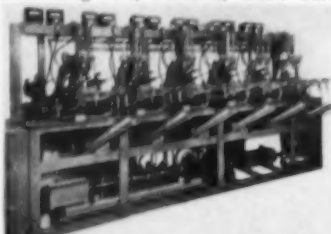
Film ☐
Containers ☐
Closures ☐
Other ☐

Name
Position
Firm Name
Street Address
City
State
Type of Business

Equipment and materials

High-speed production of plastic lids

for 8-, 12- and 16-oz. paper food containers is reported for a new sheet plastic forming machine announced by Standard-Knapp, Div. of Emhart Mfg. Co., Portland, Conn. This new EM-132 machine is said to produce either the insert or flush-fill type of lids from blanks of 10-mil Polyflex, an oriented polystyrene sheet made by Plax Corp., Hartford, Conn., at rates up to 72 per minute.



Each machine has six forming heads with individual controls so that any head may be stopped without losing the production of the rest of the unit. The blow-molding process used enables production of lids with positive cup retention, said to result in a completely sanitary seal. The lids are dimensionally stable, tasteless and odorless, as well as transparent. Diameter of lids may be held with 0.002 in. Material used may be printed in a continuous web before blanking, or lids may be printed or colored after forming. They may also be embossed during the forming stage. An operator is required only for loading blanks and removing finished stocks of lids. Although the machine is now primarily used for making lids, it can be used to form other plastic items of comparable dimensions.

Tear-strip cellulose seals for bottles

have been developed by The Celon Co., Madison, Wis. A tear strip incorporated in the Celon shrink-type cellulose seal permits breaking of the seal peripherally where the skirt of the screw cap and glass meet. A dual series of perforations circle the seal. At one end of the perforations a small tab is added. With a pull of the tab, the strip between perforations pulls out around the bottle neck. This leaves cap or cork free for immediate removal. Previously the cellulose seal was often completely removed from the bottle when the consumer opened the package, but now the Celon seal will remain on the bottle neck and decorations on the lower portion of the seal remain on the bottle neck. Sales slogan or other sell copy incorporated in the design of the seal continues to sell for the entire package life.



A new double-strength bag

made of long-fibre kraft and polyethylene featuring a back seal has been announced by the Crown Zellerbach Corp., 343 Sansome St., San Francisco. The seam of the bag is sealed in such a way that the contents of the bag touch only the polyethylene coating, thus giving more complete protection to the bag contents. The polyethylene coating prevents the contents from sticking to the bag and, when sealed, keeps air or moisture from entering or escaping, according to the company. The new bag, on which patents are pending and which will be produced on polyethylene extrusion equipment installed at the company's North Portland plant, is suggested for packaging cookies, candy (for moistureproofness); ice (for waterproofness); chemicals (for imperviousness and siltproofness); dried



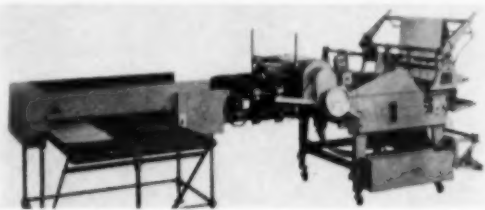
fruits (won't dehydrate or stick to bag); meat (with seal or tape opening, juices are held in); popcorn (protects against drying out and is greaseproof).

A large vibratory parts feeder

that will automatically handle heavier parts up to a 4-in. length on single or dual discharge tracks has been developed by the Syntrol Co., 250 Lexington Ave., Homer City, Pa. This large Model EB-23-B parts feeder, equipped with a 24- or 30-in.-diameter bowl, provides systemized, oriented clockwise, counter-clockwise feed of odd-shaped parts to all types of packaging and processing equipment, according to the company. Parts move up and around a spiral 1 7/8-in.-wide track at speeds that can be regulated by adjusting a rheostat to increase or decrease amplitude of vibration.

A new automatic bag stacker

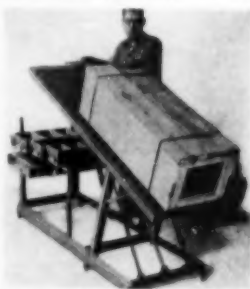
for use with the large Simplex Model 24-7 polyethylene bag-making machines, developed by the Simplex Mfg. Co., Inc., subsidiary of Food Machinery & Chemical Corp., Oakland, Calif., will stack bags up to 60 in. in length in counts of 10, 25 or 50. Designed to increase the versatility and



efficiency of the bag maker, the new stacker attachment is available for right- or left-hand mounting and may be adapted to existing Model 24-7 machines. It neatly stacks flat or gusset polyethylene bags or drum liners from 1 1/2 to 23 1/2 in. wide by 3 to 60 in. long at speeds up to 55 per minute, according to the company. No stacker adjustments are required for most changes in bag sizes. A counter keeps accurate tabulation of individual bags. A single operator can sort and pack the bag output from more than one machine. Multiple bags can be stacked in parallel lanes from tubular stock.

A hydraulically controlled packing bench

which can be tilted to set boxes weighing up to 1,000 lbs. on the floor after they have been packed has been announced by Valley Craft Products, Inc., 770 Jefferson Ave., Lake City, Minn. Called the Hydra-Tilt Table, this new packing bench reportedly has a hydraulic cylinder incorporated in its design that allows the operator to tip the load automatically from table to floor by a control lever. Heavy pieces of equipment can be placed on the table by use of a monorail and hoist, then can be boxed at a convenient working height and tilted to the floor for trucking away. Large quantities of small objects that are shipped in large containers are also efficiently handled. A 3-in. height adjustment can be made to suit the operator's convenience. Several drawers are built in to provide storage space for tools and packing materials. Size



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WITH YEARS OF HIGH-SPEED, low-cost cartoning experience as the guide, TONI adds Jones fully automatic cartoning for its booming products Pamper and White Rain.

This latest Toni equipment by Jones NOW cartons 1½, 3½ and 7 ounce bottles at speeds up to 250 per minute. This same equipment will carton a wide range of sizes and loads Toni might require in the FUTURE.

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1. Leaflet, when required, is folded (three times) and inserted in bucket slot.
2. Each bottle is given half turn on infeed line (to keep label face-up in carton) and gently placed horizontally in bucket.
3. Flat carton is fed from magazine and opened (no load, no carton).
4. Carton and bottle move side by side, in smooth constant motion, to loading station.
5. Leaflet is folded over cap end as bottle moves into carton.
6. Carton flaps are tucked, loaded carton turned upright and discharged for case packing.

Cartons ranging from 1" x 1½" x 3¼" to 2½" x 4" x 8" are accommodated on this machine by simple adjustments. Toni now has the assurance that future changes in cartoning requirements are merely routine matters.

Let a Jones packaging engineer assist you with your present cartoning needs, and—at the same time—help you plan for the years ahead. Thousands of businesses have done just that, without obligation. Why don't you?

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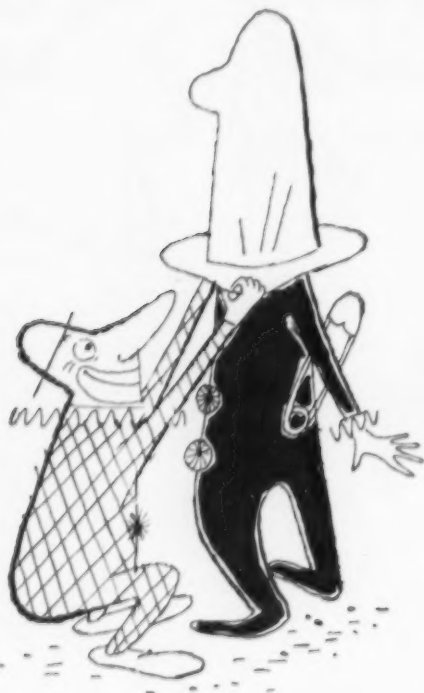
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Rigid containers — round, oblong, oval, square or cylindrical — suitable for the packing of all kinds of food, with practically unlimited applications.



the rigid PVC foil entirely free of plasticiser and consequently physiologically unobjectionable and officially approved for packaging foodstuffs.



the special type of PVC foil with excellent deepdrawing qualities for vacuum-forming, blow-forming, and plug-forming.



the rigid PVC foil with an exceptional tensile strength, practically moisture proof, unaffected by temperatures up to 176° F and with good transparency.



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Equipment and materials

of the table is 24 by 72 in. No source of power other than the load being handled is required. Features claimed for the machine are saving of operators' time and safety.

A line of cosmetic jars

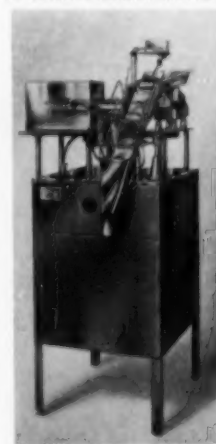
molded of Tenite polyethylene has been announced by Eastman Chemical Products, Inc., Kingsport, Tenn. Smooth, lustrous and said to be easy to keep clean and to be virtually unbreakable, the jars come in the two different sizes illustrated. They have bright metallic screw caps. Molded by Norton Laboratories, Inc., Lockport, N. Y., the jars are marketed by Richford Corp., 404 Fourth Ave., New York 16.



Two new high-impact plastic sheet

materials announced by Lurie Plastics, Inc., 1913 Boulevard, Colonial Heights, Va., are Luraplast HS (styrene) and Luraplast P (polyethylene). In the high-impact styrene sheet, the company offers a new "three-dimensional" gold or silver effect, known as the Williamsburg and Colonial finishes, suggested for display use. The company's polyethylene sheet is available in widths up to 48 in. and gauges of from 0.015 to 0.125 in.

A semi-automatic bag-filling machine



has been introduced by the Food Packaging Div. of the H. C. Little Burner Co., San Rafael 18, Calif. It is designed to provide a simply operated, low-cost, flexible weighing and filling machine. With free-flowing products it is said to be capable of speeds up to 30 bags per minute, even by unskilled operators. Accuracy is maintained through the use of an angular scale that eliminates in-flight errors. Product is gently fed through the machine by vibrating pans that are electronically controlled. Accessory equipment and adjustments on the machine make it adaptable to a wide range of packaging jobs, the company reports, employing bag sizes from 1/8 oz. to 2 lbs.

A new paper testing machine

designed to measure the internal bond strength of kraft paper has been announced by the American Sisalkraft Corp., Attleboro, Mass. The new Sisalkraft Internal Bond Tester, manufactured by the Killam Engineering Co. in Plainville, Mass., and sold by Testing Machines, Inc., 123 W. 65 St., New York 23, is reported to be useful as a research tool for those concerned with the treatment of papers for specialized uses and to paper converters.

A device for coding

labels, cartons, film bags and wrappers is being offered by Griffin-Rutgers, 41 E. 42 St., New York. The device reportedly handles triangular, rectangular, round, oval or odd-shaped labels at speeds of 2,000 per minute.

Dating is achieved by cutting a series of small notches in one edge of the label. Date changes are very simple, taking

1881 - 1956
SEVENTY FIVE YEARS AGO THIS WAS



America's First Metal Closure

Even sharper than the contrast between our first metal closure and our screw caps today is the difference in our production facilities and methods. For example—this year, our seventy-fifth, our production capacity is greater than ever before in our history. Our equipment through constant improvement grows continually "younger." And our quality standards of today would have been humanly impossible only a few years ago.

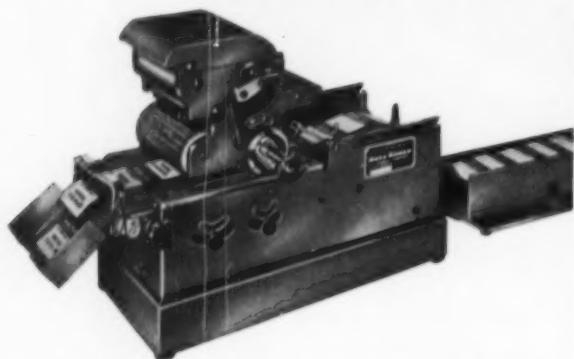
This continual "rejuvenation" of both equipment and methods has but one purpose . . . the constant betterment of the closures we provide to our customers.

America's First Manufacturer of Metal Closures

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SEVENTY FIVE YEARS "YOUNG"
BERNARDIN
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Evansville, Indiana

DOOM

FOREVER YOUR COSTLY LABEL INVENTORY CONTROL with **ROTO KIMCO** AUTOMATIC LABELING SYSTEM



Imprint labels, tags and tickets, as you need them, when you need them — speedily — 2 per second. Eliminating expensive and wasteful preprinted label inventories.

ROTO KIMCO Codes and price marks Box-and Labels, Bag Tops, Pre-pak Labels gummed, ungummed, Heat-Seal, Pressure-Sensitive—also all types of Tags and Tickets. Supplied in FAN-FOLD for economy of storing and speed in handling.

ROTO KIMCO Prints over 120 sizes of printing areas, from 1" x 1/4" up to 6 1/4" x 4 1/4". Prints price logos, rubber mats, or type in 6 pt. to giant 36 pt. Imprints, cuts off, and stacks for speed in production.

ROTO KIMCO Eliminates all types of costly rubber stamp and hand marking.



WRITE for complete details

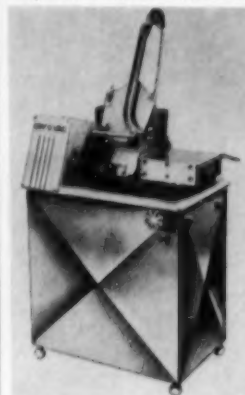


Equipment and materials

only a minute. Codes may be formed to identify dates, batch numbers, production lines, machines, shifts and similar information. The depth of the cut is adjustable.

Vacuum-packaging machine

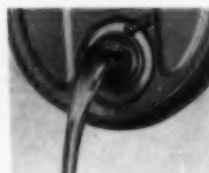
for small and medium-sized meat, dairy and poultry products was demonstrated recently by Dewey & Almy Chemical Co., Div. of W. R. Grace & Co., 62 Whittemore Ave., Cambridge 40, Mass. Designated Model HT-M, the new machine vacuum seals products in Cryovac plastic bags.



Vacuumizing, twisting, clip-applying and trimming are accomplished in one operation. An adjustable product table and controlled vacuumizing time are designed to provide speed and uniformity in packaging a variety of products. All working surfaces of the machine are stainless steel. The unit is powered by a 1/2-H. P. motor operating on 115-volt alternating current and requires 40-lb. air pressure.

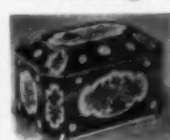
A new metal pouring spout

for 5-gal. containers has been introduced by R. W. Shore Mfg. Co., Inc., 33-17 37 Ave., Long Island City 1, N. Y. Exclusive feature of the seamless, deep-drawn, pull-up Shore Spout is a patented built-in vent that permits steady non-gulping flow of container contents. The spout is supplied completely assembled with cap and tamper-proof seal for attachment to drum or pail either before or after filling. Spout can be clinched on with hand or power closing tool.



The spout is reported as approved by the Bureau of Explosives Specifications ICC 17 E and 17 H up to 12-gal. capacity on the basis of hydrostatic and drop tests.

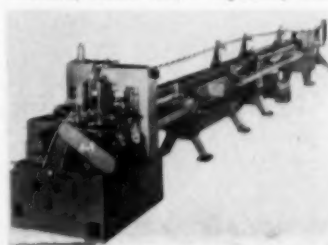
Latest design in a decorative metal



container, imported from England, has been announced by I. D. Co., 150 Spring St., New York. The No. 211 Denham Chest is white enameled internally and has a double-wall hinged lid. The decoration is burgundy, with floral panels and gold trim.

An ultra-high-speed can body maker

designed to produce 400 to 450 cans per minute, has been developed by E. W. Bliss Co., 1375 Raff Rd., S. W., Canton 10, Ohio. The new machine, Model 403, is especially compact. The work table is equipped with knurling, notching, edging and pre-fluxing attachments. A single-station, double-action edger is driven by a short eccentric that contributes to the



speed. Stationary forming horn permits alignment with solder attachment. A cam-actuated overhead blank lock prevents movement in the forming station. Notching chips are removed by compressed air to prevent their jamming the carbide dies or getting into the machinery. The bodymaker handles cans ranging from $2\frac{3}{8}$ to $5\frac{1}{8}$ in. in height and from $2\frac{1}{16}$ to $4\frac{1}{4}$ in. in diameter.

A modern I-style can



said to be the first solderless oblong can on the market, has been introduced by American Can Co., 100 Park Ave., New York. Other special features of the can include a clinched nozzle, which prevents corrosion and flux splashes; a no-drip spout with outward curl on the neck, and completely enameled inside. The container is made with the nozzle in either the corner or the center of the can and a small recess in the bottom of the can provides for compact stackability.

The new can, according to the maker, will be manufactured in quart and pint sizes.

A new glassine grade

of silver-white super transparent paper, made in 22- and 25-lb. basis weights, is being offered by the Hamersley Mfg. Co., Garfield, N. J. Two types are being made: non-plastic for window envelopes and other special uses, and a plastic-treated type for bags and other special protective packaging purposes.

These special glassine grades have been developed to be airtight, greaseproof and moistureproof, especially for packaging of food products and for non-corrosive packaging of machined parts.

A magnetic elevator-conveyor,



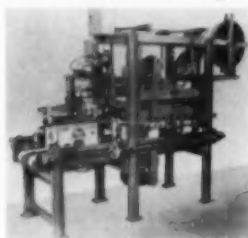
designed for automatic handling of metal items such as bottle caps, cans and the like, has been introduced by Eriez Mfg. Co., Erie 6, Pa.

Called the Magna-Mover, it has a permanent magnetic bed which is said to be capable of lifting objects up inclines of from 60 to 90 deg., at speeds up to 85 ft. per min.

The new conveyor has fork-like legs only $1\frac{1}{2}$ in. high which will fit under low pallets and an extended transition section for easy discharge into other machinery on the line. Its bed is

gently curved on a 15-in. radius to permit the handling of relatively large objects with high centers of gravity. The unit is available in 4-, 5- and 6-ft. lengths.

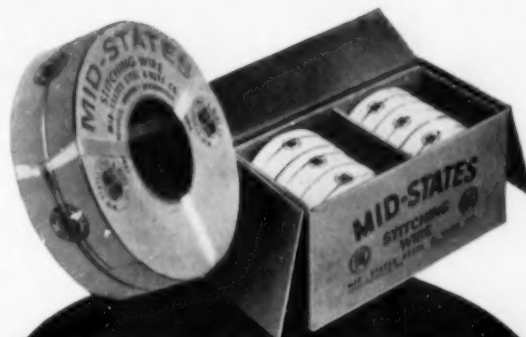
An automatic corrugated-carton taper



which reportedly will handle 25 or more cases per minute has been announced by General Corrugated Machinery Co., Palisades Park, N. J.

It will apply a single strip of tape to tops, bottoms or ends of cartons, as required, and has a minimum machine length of 7 ft.

The new machine is built, says General Corrugated, to have the same design features as the company's equipment for taping or gluing the "manufacturer's joint" in folding cartons.



Get High-Speed, Uninterrupted Stitching
with

MID-STATES

Turn to Mid-States for fast, economical production and packaging. For over half a century Mid-States has led in consistent, high product quality and cost cutting know-how. Whatever your packaging need, it will pay to do business with Mid-States.

MID-STATES STITCHING WIRE on fibre throw-away spools gives you frictionless, uniformly smooth flow—off the coil and through the stitching head—to assure high speed, uninterrupted operation. Available in 5, 10, 25, 50 lb. spools. All Standard gauges. Special gauges on request. Galvanized and copper-coated finishes.



MID-STATES BOTTOM STITCHER MACHINE staples carton bottoms up to 72" wide, 40" deep. Effective on board stock to a maximum thickness of $\frac{3}{8}$ ". Single foot pressure on saddle plate brings Bottom Post into position. The famous "Tip-Toe" contact on electric switch starts and stops stapling. Stapling Head Arms in 12, 30, 36 inches in length. Straight Arms and Sword Arm types also available.



MID-STATES WIRE TYING MACHINES are your fastest, most economical means of assuring safe, intact shipments of products. Mid-States "T" model is the answer—it's simple, streamlined and fast! Moving handle forward and back tensions, ties, cuts wire in one easy operation. Mid-States supplies the wire to use with each machine.



MID-STATES STEEL AND WIRE COMPANY
CRAWFORDSVILLE, INDIANA • JACKSONVILLE, FLORIDA

Plants and people

Dr. John H. Truesdail has been promoted to assistant plant manager at the Pisgah Forest, N. C., plant of the Film



Truesdail



Mertes

Division of Olin Mathieson Chemical Corp. and Joseph C. Mertes has been named technical service manager. Dr. Truesdail will be in charge of polyethylene producing operations at Pisgah Forest. Robert D. Elkund has been named a Midwest sales representative for the Olin Film Division. Appointed film engineer in technical service for the division is Edward A. Johnson.

Foiltainer, Inc., San Gabriel, Calif., has concluded an agreement with Reynolds Metals Co., Louisville, Ky., to operate West Coast facilities for the manufacture of aluminum foil containers for Reynolds, which will handle marketing of the containers through its nationwide sales organization. This is called by Reynolds a "major step" in its program to locate manufacturing facilities for foil containers in strategic markets and to have container plants in close proximity to Reynolds' facilities which produce the foil. The arrangement with Foiltainer will enable Reynolds to enlarge its technical engineering staff for further development of all-aluminum containers and also to expand work in the design and development of automatic high-speed filling and closing equipment for foil containers.

After 42 years, Earl Nack is retiring at Sharp & Dohme, Div. of Merck & Co., but says he "expects to be active in some form of packaging for a long time" doing independent consulting work. Mr. Nack has spent the last 20 years as manager of the Package Development and Specifications Dept. at Sharp & Dohme and previously was in charge of several production departments for that company. He is one of the Packaging Institute's most active members, having served since the second year of its existence. He founded the present Drug and Pharmaceutical Committee and was its chairman for six years. He has also served as a member of PI's Technical Operation Committee and Chairman of its Products Div.

Robert Gair Co., Inc., New York, has promoted George W. Keiser, Jr., to sales manager of its Syracuse Corrugated Box Division.

J. H. Kaylor has been appointed production manager for the Hazel-Atlas Glass Co., Wheeling, W. Va. He will be

located in the company's general office in Wheeling. Louis Stewart, formerly assistant superintendent, succeeds Mr. Kaylor as superintendent of the Montgomery, Ala., plant.

The Consolidated Paper Co., Monroe, Mich., has opened a new office in Pittsburgh. Harold W. Boyd, Jr., formerly with Mead Board Sales, will represent the company in the new office.

K. W. Weyer has been appointed director of label sales for the United States



Weyer

Printing & Lithograph Co., Cincinnati, Ohio. In his new position, Mr. Weyer will direct label sales in the company's 25 sales offices from the firm's New York executive offices at 575 Madison Ave. Howard Wessling has been appointed as West Coast sales manager to replace Mr. Weyer.

Marathon Corp., Menasha, Wis., has purchased the stock of Manchester Paper Boxes, Ltd., Toronto, Ont. The Canadian company will operate as a division of Marathon. Donald Manchester will be general manager of the firm and the Manchester organization will remain intact, with no change of personnel or policies. Manchester products include dry-folding cartons and paraffined cartons for the food industries and set-up paper boxes for packaging jewelry, cosmetics, etc.

Marathon has appointed Reece Stigler as Western sales supervisor in meat and vegetable-oil packaging. Mr. Stigler will continue as a sales representative in the San Francisco area and will also supervise sales operations in the Los Angeles, Seattle and San Francisco areas.

The recently organized Peterson Filling & Packaging Co., Danville, Ill., is now in full production, doing contract



Peterson

custom filling and packaging of all types of containers, with specialization in aerosols. Harry E. Peterson, president of the company, was formerly president of Continental Filling Corp. Robert J. Peterson, formerly sales manager for Continental, is vice president of the new firm. Edward C. Hegeler and Julius W. Hegeler are secretary and treasurer, respectively. John K. Shea has charge of sales and Montfort A. Johnson is director of research.

Container Corp. of America, Chicago, will build a \$30-million bleached sulphate pulp and board mill at Brewton,

Ala. The mill will supply a large portion of the requirements for bleached pulp board for food cartons and help supply bleached pulp to Container Corp.'s northern boxboard mills. Construction, to begin this month, is expected to be completed in 1957. The new mill is expected to produce 300 tons of board a day on a 216-in. Rice Barton Fourdrinier machine, with a 196-in. trim.

Plans have also been announced by Container Corp. to build a new boxboard mill in Santa Clara, Calif., and a new folding carton plant in Seattle, Wash. The mill is expected to cost \$6,300,000 and the carton plant about \$925,000. The new mill will be adjacent to the company's Santa Clara folding carton plant.

The Aldine Paper Co. has appointed Robert Rothstein as manager of its newly organized Board Division. Mr. Rothstein will headquarter at 535 Fifth Ave., New York, and devote his attention to sales and product development activities.

Inta-Roto Machine Co., Richmond, Va., recently completed a \$250,000 expansion program which has added a new building, 20,000 sq. ft. of space and a number of heavy machine tools to their manufacturing facilities. Inta-Roto Machine manufactures laminators, printing presses and other special types of machines used by manufacturers and converters of foil, paper, paperboard and film. Bernard Poirier has been appointed superintendent of Inta-Roto Engraving Corp., an affiliate organization that does rotogravure engraving.

Package Products Co., Inc., Charlotte, N. C., has acquired control of Herald Press, Inc., also of Charlotte. Herald Press prints labels, box wraps and paper packaging materials. Package Products is a converter of flexible packaging materials. Jord H. Jordan, former president of Herald Press, will serve as president of Package Products, with T. J. Norman, Jr., as executive vice president. Other officers include Don Davidson, Sam Ryburn and Henry Wittel as vice presidents; Price Gwynn, III, secretary; E. A. Earp, treasurer; E. P. Warren, assistant treasurer.

Durethene Corp. has just broken ground for a new plant on a five-acre plot at 7001 W. 60 St., Chicago, which it expects to occupy in April of this year. It has been designed to accommodate a large installation of new equipment to increase the growing demand for polyethylene film.

Dr. Robert W. Cairns, assistant director of Hercules Powder Co.'s Research Dept. since 1945, has been appointed director of research. He succeeds Dr.

*"Our printing looks better
on Corabrite..."*



H&D Corabrite boxes are smoother
and brighter than ordinary corrugated
boxes . . . yet cost no more.

Corabrite is perfect for your product.
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Subsidiary of West Virginia Pulp and Paper Company

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13 FACTORIES • 42 SALES OFFICES

UNIT PACKET SERVICE FOR MORE OF YOUR CUSTOMERS

Packet Packaging for Your
Granular, Powdered and
Liquid Products



SHAKER PACKETS
for DRY PRODUCTS
Capacities:
1 to 8 grams



LIQUID PACKETS
for all SINGLE
SERVICE CAPACITIES

Additional plant facilities now permit extending use of these unit packets. We can now offer sizes and styles for granular and powdered products beyond accepted popular uses for salt, pepper, sugar, spices and drugs. Unit packets are also available for liquids beyond accepted popular uses for syrups, sauces, jams, mustards and ketchup.

Send sample of your product for packet packaging recommendations or write for samples indicating products to be packaged.

UNIT PACKET COMPANY
Wilmington, Massachusetts

Plants and people

Emil Ott, who has resigned to join Food Machinery & Chemical Corp.

Directors of the Continental Can Co., New York, have elected Thomas C. Fogarty as president to fill the vacancy



Fogarty

created by the retirement of Hans A. Eggers. Reuben L. Perin, vice president of the Eastern division, has been elected executive vice president of the Metal division, the position held by Mr. Fogarty since 1950. Orren R. McJunkins has been promoted to vice president in charge of the Eastern division and Horace M. Blinn is now vice president in charge of the Pacific division, filling the vacancy created by the retirement of Sherlock McKewen.

All functions of Aluminum Foils, Inc., other than direct sales and service, are now being handled at the company's executive offices in Jackson, Tenn. Thomas W. Allison has been named manager, Eastern sales; William F. Kaufmann is manager, Midwest sales; and Philip Crane is now in charge of operations in the Cleveland area.

Fort Wayne Corrugated Paper Co., Fort Wayne, Ind., has named Donald G. Thomas to head the company's Special Accounts Division. In Hartford City, Ind., David M. Hartman was appointed division manager; E. W. Klepper, division sales manager; John H. Stout, production manager; and Paul L. Harrison, office manager. In Pittsburgh, Robert M. Jones is now division manager; V. K. McClain, division production manager; and George Sommer, office manager. In Rochester, Donald P. McNelly is now division manager; J. R. Seaborn, division sales manager; Charles Porter, division production manager; Edwin H. Brands, office manager. In Chicago, V. I. Kegerreis is division manager; John R. Wold, sales manager; Harrold R. Chaney, production manager; and Earl Shaffer, office manager.

The Arthur Colton Co., Detroit, has purchased an 18,000-sq.-ft. brick building at 1030 McDougall Ave. which will be utilized as a warehouse for the company's pharmaceutical, chemical and packaging industry machinery. The new warehouse replaces currently leased space in three different locations. Colton's manufacturing operations will soon be moved from Bellevue Ave. into a \$500,000 addition now being completed at the Lafayette Ave. plant.

The Howe Paper Division of Hubbs & Howe Co., Tonawanda, N. Y., is now set up to handle the requirements of volume users of folding cartons. The

services of designers are available to customers, free of charge, in working out their packaging problems. Sales manager in charge of the division handling package design is P. R. Stone.

Jet-Pak, Inc., Newark, N. J., has appointed John T. Vlasick, 557 Roy St., Seattle, Wash., as manufacturer's representative of Jet-Pak cushioned and insulated bags and pads in the states of Washington, Oregon and Idaho. Frank Symcak, P. O. Box 373, Milford, Conn., has been named representative in Connecticut, Massachusetts, Vermont, Maine, Rhode Island and New Hampshire.

Donald W. Hill, vice president of the Crown Cork & Seal Co. and general manager of the company's specialty division at St. Louis, has



been promoted to vice president and general manager of the crown and closure division. Mr. Hill will be located in the Baltimore headquarters of the crown and closure division.

John Luviano, sales engineer with Crown Cork & Seal's machinery division, has established headquarters in the company's New York offices. He will cover New England, New York and New Jersey in conjunction with the sale of brewery, beverage and dairy packaging machinery. He will also serve as sales engineer in the Latin American market, with the company's export division.

Brockway Glass Co., Inc., Brockway, Pa., has announced completion of negotiations for the acquisition of the Demuth Glass Works, Inc., Parkersburg, W. Va. Demuth manufactures glass tubing used in fabricating vials and similar items for the pharmaceutical trade. In addition to making tubing, Brockway will process an entirely different texture of glass for further diversification from the general line of containers they are now manufacturing. An expenditure of from \$1 to \$1½ million is contemplated for the company's improvement and expansion program. No important changes in personnel will be made, nor will there be any interruption in the company's present operations.

Edmund L. Fitch has been appointed sales promotion manager for The Howe Scale Co., Inc., Rutland, Vt.

The new plant in Willow Grove, Pa., recently acquired by the Sullifam division of Sullivan Products Co., Philadelphia, is reported to be the first such facility in this area devoted to the design, development and engineering of products from Koppers Co.'s new Dylite expanded polystyrene plastics. The new



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Clean as can be!

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Kodapak Sheet to enhance his new line...**

Clearly, the cases are Kodapak Sheet... tough, durable, crystal-clear, color-true, free from waves and ripples. Customers see the product clearly, buy without handling!

Clearly, the cases are Kodapak Sheet... uniform in composition and gauge, with good dimensional and chemical stability. It draws without "blush," is processed in

high-production machinery. Packaging costs are kept in line!

Give you ideas for your product line? Then call our representative, or write for full information—literature, names of firms using Kodapak Sheet or handling it.

**Cellulose Products Division,
Eastman Kodak Company, Rochester 4, N.Y.**

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Sales offices: New York, Chicago, Atlanta. Sales representatives: Cleveland, Philadelphia, Providence. Distributors: San Francisco, Los Angeles, Portland, Seattle (Wilson & Geo. Meyer & Co.); Toronto, Montreal (Paper Sales Ltd.).



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MEAT AND FOOD WRAPPER

PAYS FOR ITSELF IN LESS THAN SIX MONTHS TIME ON JUST MATERIAL & LABOR SAVINGS!

Fast, automatic CAMPBELL wrapper saves up to 60% on vacuum drawing packaging films and materials

No question about it — the CAMPBELL Vacuum-Pak's simplified one person operation; its close-fitting vacuum drawn wrap which requires no trays or stiffeners, unless desired — ACTUALLY saves enough money on materials and labor alone over competitive methods to pay for itself in 4 to 6 months time! In addition, the product's tight wrap minimizes puncture risk and is vacuum guaranteed.

Used by America's leading packers, this ingenious automatic vacuum wrapper packages sliced luncheon meats, bacon, chops, patties, wieners, cheese and other food products with equal ease and speed. Simple adjustments require minimum down-time for product change-over. Get complete cost and production facts today.

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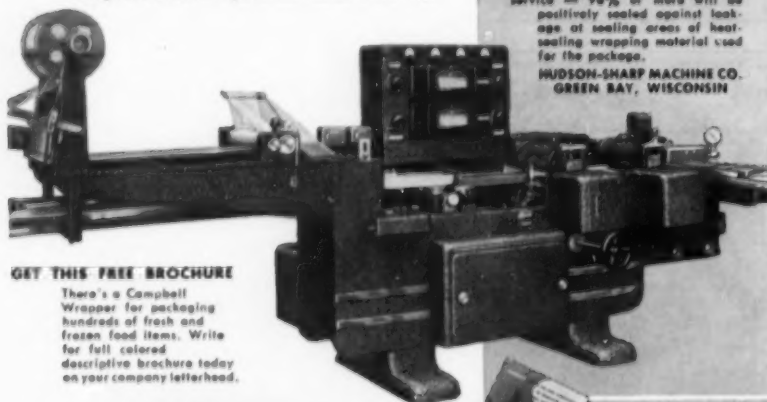


- 98% of packages positively sealed and guaranteed.
- Vacuum drawn wrap eliminates shrinkage, flavor and color loss.
- Tremendous savings in wrap materials and labor.
- Delivers 40 to 70 Units per minute
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Less than 2% package "Leakers"

It is hereby guaranteed that out of every 100 units Vacuum-Packed on a CAMPBELL Vacuum Pack Meat and Food Wrapper in regular production service — 98% or more will be positively sealed against leakage of sealing areas of heat-sealing wrapping material used for the package.

HUDSON-SHARP MACHINE CO.
GREEN BAY, WISCONSIN



GET THIS FREE BROCHURE

There's a Campbell Wrapper for packaging hundreds of fresh and frozen food items. Write for full colored descriptive brochure today on your company letterhead.



NEW... Campbell-Pak

Another first — converts roll stock to low cost filled and heat sealed bags for manual or automatic sequence packaging of liver, brains, kidneys, tongues, heart, cheese and other products. Write for descriptive literature on this entirely new method packaging machine.

Plants and people

plant, which contains 10,000 ft. of space, will be equipped with special machinery designed for the production of the foam material.

Donald B. Roberts has been appointed Missouri Valley division manager for the Permacel Tape Corp., New Brunswick, N. J., a Johnson & Johnson company. Mr. Roberts will headquarter at the Permacel division office in St. Louis.

St. Regis Paper Co., New York, has announced that Robert W. Agler, president of General Container Corp., has been named to succeed Merlin C. Hamilton, who has resigned as president of Superior Paper Products Co. Mr. Hamilton will continue to serve the company on a consulting basis. E. C. Goebel, former secretary-treasurer and assistant general manager of Superior, has been named vice president and general manager of the company. Superior Paper and General Container are both St. Regis subsidiaries.

St. Regis Paper Co. has acquired from Growers' Container Corp., Salinas, Calif., a block of stock representing approximately a 40% interest in the stock of Growers'. It is expected that proceeds from the sale will be used in expansion plans of the corporation. Growers' Container manufactures fibreboard containers for agricultural and industrial products and also converts flexible packaging materials. The geographical area of Growers' present market consists of California, Arizona and Texas.

Dr. Robert T. Armstrong has been elected vice president-technical director of Celanese Corp. of America, New York. Dr. Armstrong has been associated with Celanese in various technical capacities since 1946 and holds several patents in the fields of rubber, chemicals and synthetic polymers.

Philip H. Sagarin has resigned as vice president in charge of manufacturing at Bruner-Ritter, Inc., to devote full time to his duties as president and director of VCA Incorporated, Bridgeport, Conn. VCA, founded by Mr. Sagarin in 1949, is a supplier of valves for aerosols.

Product Packaging Engineering, Culver City, Calif., has appointed the Standard Supply Co., 148 State St., Hartford, Conn., and Herman & Leal, 468 McGill St., Montreal, Canada, as sales representatives in the New England area and Eastern Canada, respectively. Product Packaging produces the Pak-O-Mat automatic packaging machines and the Comet 54 semi-automatic heat sealers.

B. G. Deazley, formerly with the Chase Bag Co.'s Philadelphia branch, has been named manager of the company's manufacturing plant in Reidville, N. C., which produces textile bags, small paper

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✧ Packages
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YOUR PRODUCT IS YOUR MOLD

● A functional package with proven retail sales increase up to 200% by actual survey. A thin film of tough plastic is formed over your product and seals itself to printed and coated cardboard.

Two girls can package up to 40,000 small items in eight hours.

Abbott "skin-pack" process is the cheapest method of display packaging known.

Process is protected by pending U. S. patents.

No tooling costs — your product is your mold.

Without obligation, send us a few samples of your product. We will package them and return them to you promptly.

Theft ratio is less than ever before when your product is attached to a cardboard back.



NEW DIE PRESS

After packaging many items on a master cardboard, Abbott's Die Press will serve to cut them apart using simple steel rule dies.

Pneumatic operated compound toggles insure fast operation and a 14" daylight opening for ease of loading.

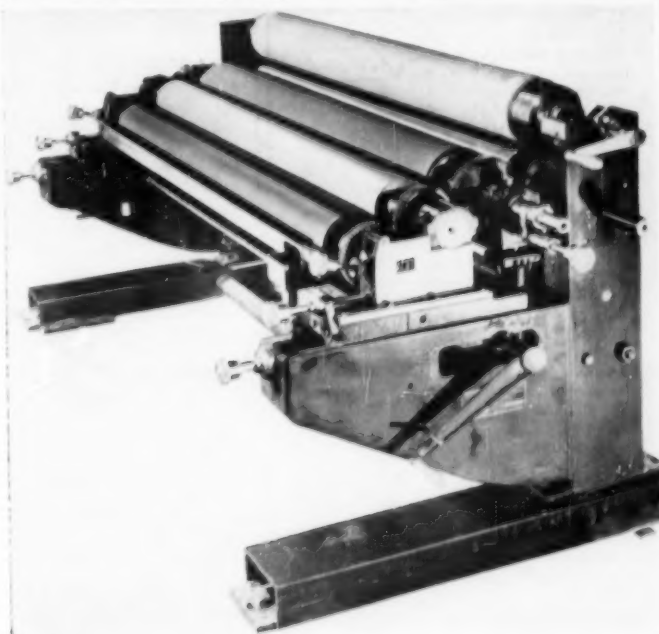
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BE FIRST

This unit can be mounted to ANY installation such as gumming machine, slitter, re-winder, etc. It will print stock of heavy liner board, paper foil and film. Has large feed roller to enable web to drive unit and extended impression cylinder shaft which may be used as a drive shaft—if material warrants. This FLEXOGRAPHIC PRINTING UNIT has standard repeat of 10 to 40 inch, or optional 10 to 60 inch. This FLEXOGRAPHIC PRINTING UNIT can be equipped with free wheeling rotating ink roller system including electric motor and overriding clutch.



OPTIONAL: Anilox roller system.

Available in widths from 24 to 85 inches.

Yes! This unit is designed—with you in mind.

Let our engineers help you with your problems.

A MUST in every converting and printing plant.

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*able-stik at work

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In the production of a plastic telephone, a toy manufacturer found the answer to a short cut in production and a long cut in costs by simulating the dial with a pressure-sensitive die-cut label.



As part of a fund raising campaign, United Cerebral Palsy used a toy plastic airplane for the promotion. The necessary identification and "pitch" were supplied by an ABLE-STIK label.



An office furniture manufacturer cut his product identification costs considerably when he switched from expensive metal name plates to low cost, easy-to-apply ABLE-LABELS.

Airlines go for the ABLE-STIK type of label. Ever notice what happens when you change your reservations? Instead of the expense of making a new ticket, all the clerk does is to cover up the old data with an ABLE-STIK form that simulates the basic ticket. Simple, inexpensive and fast . . . good reasons for usage.



Mirror manufacturers like to use ABLE-STIK, not only because their story is easy to get on to their products but the removal of labels is readily achieved without damage or chemical reaction to the silver finish of the mirror. No residue, no mess, no fuss, no trouble.

With so many colors and types of lipsticks being sold, cosmetic manufacturers have resorted to ABLE-STIK applications on the base of lipstick holders. Ideal for trade marking, color identification, and other data.



Ask for the "Blue Print to Modern Labeling" and our kit of ABLE-STIK samples.

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Plants and people

bags and a number of specialty items. A. Chad Ogden, with Chase since 1940, has been named sales manager of the firm's Kansas City branch. G. E. Snook, assistant manager of the Goshen, Ind., manufacturing plant, has succeeded the late J. Dana Cramer as manager.

Foil Kraft, Inc., has announced its removal to new and larger facilities at 1345 S. Herbert Ave., Los Angeles 23.



Myers

Harry B. Myers has joined the Old Dominion Box Co., Charlotte, N. C., as manager of its Set Up Box Division. Mr. Myers was formerly assistant production engineer for Vick Chemical Co. and later plant manager for Prince Matchabelli, Inc.

The U. S. Bottlers Machinery Co., Chicago, has appointed N. W. Clowe & Co. as its representative in Mississippi and Louisiana, with headquarters at 128 Duncan Ave., Jackson 5, Miss., and headed by H. Wyatt Clowe.

Seymour Murray Kent has been appointed package designer for Tussy Cosmetiques, New York. Previously he was with Helena Rubinstein and Gourielli.



Flint

Robert Flint, treasurer of the Howard Flint Ink Co., Detroit, has been elected president of the National Printing Ink Research Institute at Lehigh University. The Institute is a cooperative research organization sponsored by the National Assn. of Printing Ink Makers. Mr. Flint handles his firm's technical research and production.

Air-Pack Corp., a subsidiary of The Flying Tiger Line, Inc., has moved its main plant to larger quarters at 344 W. Garvey Ave., Monterey Park, Calif. The company specializes in military and industrial contract packaging for the domestic and export markets and manufactures wooden boxes and crates. The company will retain its Burbank plant. Air-Pack recently established a division in Waco, Tex., to serve central Texas.

The Allen Hollander Co., New York, producer of labels, has retained the services of E. Leonard Koppel, New York package designer, whose creative design services will be available to the company's customers.

Ralph W. Penn has resigned as president of Pen-Mac-Nye Co., Akron, Ohio, and has sold his interest in the company to the other principals. Mr. Penn now heads his own organization, Packmaster

Sales Co., P. O. Box 2510, Akron 10, Ohio. The new firm is sales agent for Packmaster automatic packaging machines.

Hugh S. Ferguson, president of Dewey & Almy Chemical Co., Div. of W. R. Grace & Co., has been named executive vice president in charge of the chemical group in the parent company, including Davidson Chemical Co., Grace Chemical Co. and Grace Chemical Research & Development Co., as well as Dewey & Almy. Alexander Daignault has been elected executive vice president and chief financial officer of Grace operations. Allen S. Rupley, whom Mr. Daignault succeeds, and Andrew B. Shea, who has been executive vice president of the South American group, both take broad corporate responsibilities. Succeeding Mr. Shea is James H. Stebbins, who will be assisted by John T. Whitely as deputy. Both have been connected with South American operations. Lucas A. Alden, who has been vice president and controller, moves up to replace Mr. Stebbins and Fred R. Feuss, until now assistant vice president and assistant treasurer, succeeds Mr. Alden.

Ferguson

Newly elected officers of the Lincoln Container Corp., Lincoln, Ill., are: Maxwell J. Jones, president and treasurer, succeeding Joseph M. Nester, deceased; Ben F. Slater, vice president; Leonard E. Sheppard, secretary.

Packaging Commodities has moved to new and larger quarters at 6205 13 Ave., S., Seattle 8, Wash. The company now converts, processes and prints all types of pressure-sensitive tapes, including cellophane, paper, masking, cloth and strapping.

A new Paper Specialty Dept. has commenced operation at the Bemis Bro. Bag Co.'s Wilmington, Calif., plant. This is the first Bemis paper specialty operation on the West Coast. H. M. Wonder, formerly a salesman for Bemis' Los Angeles sales division, is in charge of the new facility.

Edward E. Fay has been named Northern district sales manager of the Container Division, The Flintkote Co., New York.

Plans for the Albemarle Paper Mfg. Co., Richmond, Va., to purchase the Raymond Bag Co., Middletown, Ohio, have been approved by the directors of both companies. Raymond Bag manufactures multiwall paper shipping sacks. Albemarle operates three mills, manufactures unbleached kraft pulp and

New South American Plant

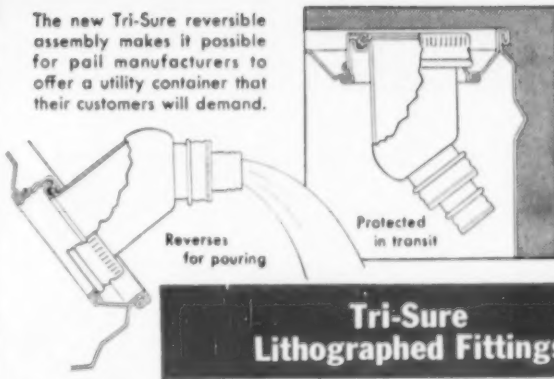
TRI-SURE S/A
INDÚSTRIA E COMÉRCIO



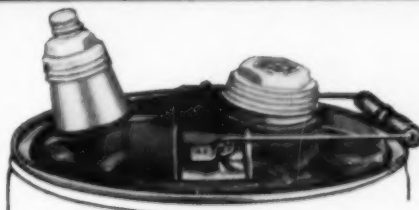
The new Tri-Sure subsidiary, Tri-Sure S/A Indústria e Comércio, São Paulo, Brazil, supplies a complete line of closures for drums and pails.

Tri-Sure Reversible Spout

The new Tri-Sure reversible assembly makes it possible for pail manufacturers to offer a utility container that their customers will demand.



Tri-Sure Lithographed Fittings



Lithography protects fittings, adds life and color and provides a base for private designs on the caps.

Tri-Sure® progress is your protection when you ship drums, pails or cans

These new Tri-Sure® products, all introduced in the past 12 months, are the outgrowth of research and tests that are constantly being made to maintain the utmost efficiency in Tri-Sure Closures and Service Tools.

35 Years' continuing search for improvements has provided important benefits to every user of Tri-Sure Products because drums and pails are protected by closures that have the most advanced features, provide maximum security, and are the last word in ease of operation.

Now more than ever, it will pay you to specify Tri-Sure Closures on every order for drums, pails or cans—and to consult Tri-Sure sales engineers whenever you have a closure problem.

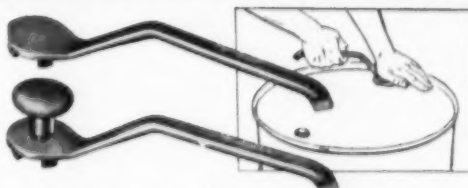
*The "Tri-Sure" Trademark is a mark of reliability backed by over 35 years serving industry.

Always specify



CLOSURES

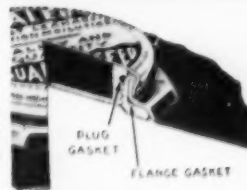
Tri-Sure Offset Plug Wrenches



Designed for 2" and 3/4" die cast and steel plugs. Hand rest enables head to be held down firmly while handle is turned. Offset handle keeps knuckles free of drum chime.

Tri-Sure Heat-Resistant Gaskets

Standard Buna Gaskets for Tri-Sure Flanges and Plugs are further improved and have longer life. The new Hypalon Gaskets give improved gasketing qualities to chemical products.



AMERICAN FLANGE & MANUFACTURING CO. INC., 30 ROCKEFELLER PLAZA, NEW YORK 20, N. Y.

Tri-Sure Products Limited, St. Catharines, Ontario, Canada

Tri-Sure S/A Indústria e Comércio, São Paulo, Brazil

B. Van Leer N. V., Stadhouderskade 6, Amsterdam, Holland

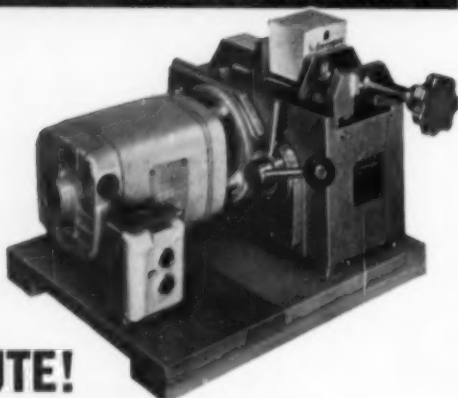
Van Leer Industries, Ltd., Seymour House, 17 Waterloo Place, Pall Mall S.W. 1, London, England

⁶⁶ **Codeage** ⁹⁹ ®

LABEL DATING AND CODING MACHINE

U. S. A. PAT. NO. 2843718, BRIT. PAT. NO. 849426, AND OTHER FOREIGN PATENTS

**DATES
and
CODES
2000
LABELS
PER MINUTE!**



Used by many leading packers because it cuts costs—saves time—does not deface label.

CODEAGE handles labels of any size or shape, small cartons, film bags and wrappers. Provides any control information desired — date, batch, machine, operator, etc. Quickly, easily read code leaves no defacing mark. Initial cost and operating cost surprisingly low. Write for full details to:

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**Service
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Rubber Plate
Printers**



A complete production service for converters and package printers everywhere

RUBBER PLATES AND DESIGN ROLLERS

Our integrated pre-press production service can be the answer to improved printing quality and maximum performance from your press. Rely on MOSSTYPE for pre-madeready RUBBER PLATES and ready-to-print DESIGN ROLLERS... as well as "Flexogenic" ARTWORK and "Extra-Depth" PATTERN ENGRAVINGS.

RUBBER PLATE MOUNTER-PROOFER

The machine used 'round the world for mounting and proofing rubber plate jobs off the press. A "must" in every plant because it cuts press down-time to a minimum... saves labor, ink, stock... assures closer register.

"D-MOUNT"® RUBBER PLATE CYLINDERS

A new type of plate cylinder assembly that costs far less... but has the precision accuracy and concentricity of finest integral-shaft rolls. Lightweight... easy to handle and store. Assembled and disassembled in minutes. "D-MOUNTS" enable you to keep more jobs standing... carry a wider range of repeats.

*Patents Pending

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MOSSTYPE

150 Franklin Turnpike, Waldwick, N. J.

Plants and people

paper, and produces multiwall paper shipping sacks, kraft paper and waterproof papers.

The Buckeye Molding Co., Miamisburg, Ohio, maker of plastic containers and closures, has named Edward L. Von Hofen as sales manager for containers and closures. Hugh Clark has been appointed plant manager.

G. W. Reese, formerly vice president in charge of American Can Co.'s Atlantic



Reese Alwyn

division, has been named vice president in charge of manufacturing for the entire company. He succeeds Roger F.

Hepenstal, who was recently elected treasurer of the firm. T. E. Alwyn, formerly a vice president in the executive department of American Can, has been named vice president in charge of operations in the Atlantic division to replace Mr. Reese.

Felix Christiansen, a 29-year-old production mechanic at American Can Co.'s Brooklyn plant, is the first of the



(L. to r.) Mr. & Mrs. Christiansen, W. C. Stolk

company's employees to win the top award of \$10,000 in the container firm's Suggestion Award Plan. It is one of the largest payments ever made by industry for an employee suggestion. Mr. Christiansen's idea had to do with a simple improvement to the equipment used to make coffee and similar cans. William C. Stolk, Canco president, presented a check to Mr. Christiansen at a ceremony attended by the winner's family and fellow employees.

Lloyd G. Brown, formerly chief engineer with the H. D. Catty Corp., is now affiliated with the Pipe Line Service Corp., Franklin Park, Ill., as assistant to the president.

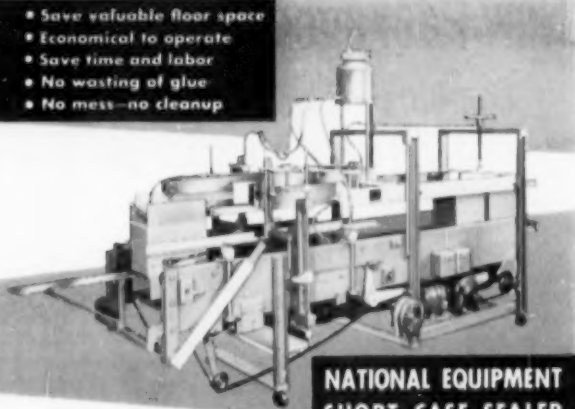
The industrial design firm of Smith, Scherr & McDermott, Akron, Ohio, has announced the following additions to its staff: Frank J. Lengyel, package de-

The greatest advancement in case sealing history!

- Save valuable floor space
- Economical to operate
- Save time and labor
- No wasting of glue
- No mess—no cleanup

Only National Equipment's Case Sealers have these exclusive new features!

- New, exclusive, patented, fully-enclosed GLUE VALVE APPLICATORS.
- Rapid adjustment to wide range of case sizes.



**NATIONAL EQUIPMENT
SHORT CASE SEALER**

The following are some of the plants in which the National Equipment Short Case Sealer is installed:

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| • General Electric | • Casco | • Fine Products |
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| • O. M. Scott | • United Biscuit | • Sawyer Biscuit |

TELL US YOUR CASE SEALING REQUIREMENTS

Send Us Samples Of Your Cartons
Full Details Available On Request

*Prompt
Deliveries*

Model SC Short Case Sealer
handles cases:
8" to 20" long 6" to 18" wide
4" to 18" high

Model LC Short Case Sealer
handles cases:
8" to 30" long 6" to 18" wide
4" to 18" high

OTHER SIZES AVAILABLE ON REQUEST

Our Case Sealers are also made for automatic operation
Inquire For Full Details



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Packaging Division

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Chicago, Illinois
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EVER SEE
A PACKAGE
SMILE?**

**BLACK WIZARD PRESSURE
SENSITIVE TAPES** can make any package smile because they do the job so well. It's the tape that seals, holds, protects, repairs, binds and masks. It's better because it sticks at a touch; it's the most economical tool in your packaging department.

For information and free sample write to
Dept. of Smiles c/o Chief Wizard
VERNON CHEMICAL & MFG. CORP.

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**CADY
Hand Micrometer**

Has die cast aluminum frame, shaped to fit hand; convenient trigger release and locking screw; capacity is thickness up to 1/2" horizontal glass covered 5" diam. dial graduated 1/1000ths of an inch. For use throughout the plant or when traveling. Extremely accurate; direct reading; no computing. Spherical end anvils available on order. \$65.00, F.O.B. Chicago, Illinois.

For caliper thicknesses of Papers, Boards, Folds, Felt, Glass, Metals, Plastics, Rubber; Sheet stock or Finished Products with thicknesses to one-half inch.

CADY Standard Gauge

Registers thickness to 5/16"; available with 6, 7, 12 or 16" throats. Horizontal, glass covered dial is 6" diameter; graduations 1/1000ths or .005 inch.

CADY Dead Weight Mike

Dead Weight Anvil descends by gravity for extremely uniform pressure and completely accurate caliper. 6" diameter glass covered dial with 1/1000ths or .005 graduations.

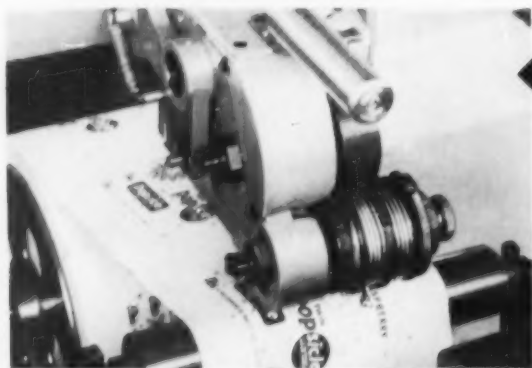


Standard Model: \$110.00; Dead Weight Model: \$126.50, F.O.B. Chicago, Illinois

Write for data and prices: Burst Strength Testers, Basis Weight Scales.
E. J. CADY & COMPANY, 642 N. Harlem Ave., River Forest, Ill.

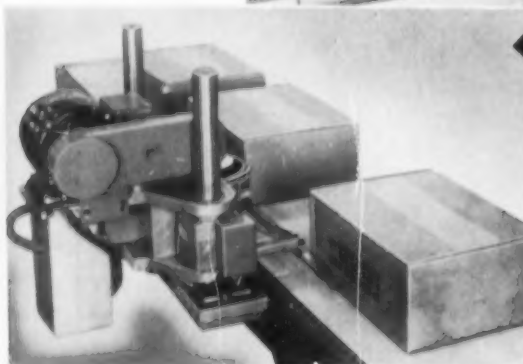
New Package-Imprinting Attachments

combine compactness and easy-installation features with precision printing performance



Model "700-A" ROLAPRINTER machine...compact wrapping machine attachment that imprints code-dates, flavors, weights, colors, brands, etc., on package wraps of cellophane, polyethylene, glassine, foil, paper. Makes accurately positioned imprint anywhere on wrap, adjusts for any cut-off length.

Model "700" ROLAPRINTER machine...imprints code-dates, lot numbers, product names, trade-marks, varieties, etc., on top surface of cartons, cases, round or rectangular cans and canisters. Attaches to conveyor or packaging machine. Locates imprints in exact desired position on containers even if container flow is irregular.



Model "750" ROLAPRINTER machine...imprints contents identifications, other legends on side surface of set-up cartons and cases, rectangular metal cans, wire or strap-bound bundles, etc. Attaches to conveyor, case-sealer, other production equipment. Not just another "marker" but a precision imprinter that gives "printing-press" results. Also available for imprinting all 4 sides.

These new units are fully automatic, operate by means of microswitch-activated electro-mechanism that registers imprints accurately; have built-in motor-driven flexographic printing system that synchronizes with surface speed of web or package. Use fast-drying liquid ink of any color and rubber type or dies.

Write for descriptive illustrated bulletin, specifying model in which you are interested.

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In Canada: RICHARDSON AGENCIES, LTD., Toronto & Montreal

Automatic
Production-Line
CODING, MARKING
IMPRINTING
MACHINES

Plants and people

signer formerly with the Firestone Tire & Rubber Co., and Roger C. Prince, package designer formerly with the Ohio Boxboard Co.

Harold A. Ham has been appointed to the newly created position of general manager in charge of manufacturing at the Flex-Vac Division of Standard Packaging Corp., Clifton, N. J. Mr. Ham previously was associated with Hoffmann-La Roche as director of pharmaceutical production and with Lehn & Fink as general factories manager.



Ham

The East Texas Pulp & Paper Co. has announced the formation of a new department to be headed by Fred Nason as director of research and planning. John B. Beck succeeds Mr. Nason as technical director.

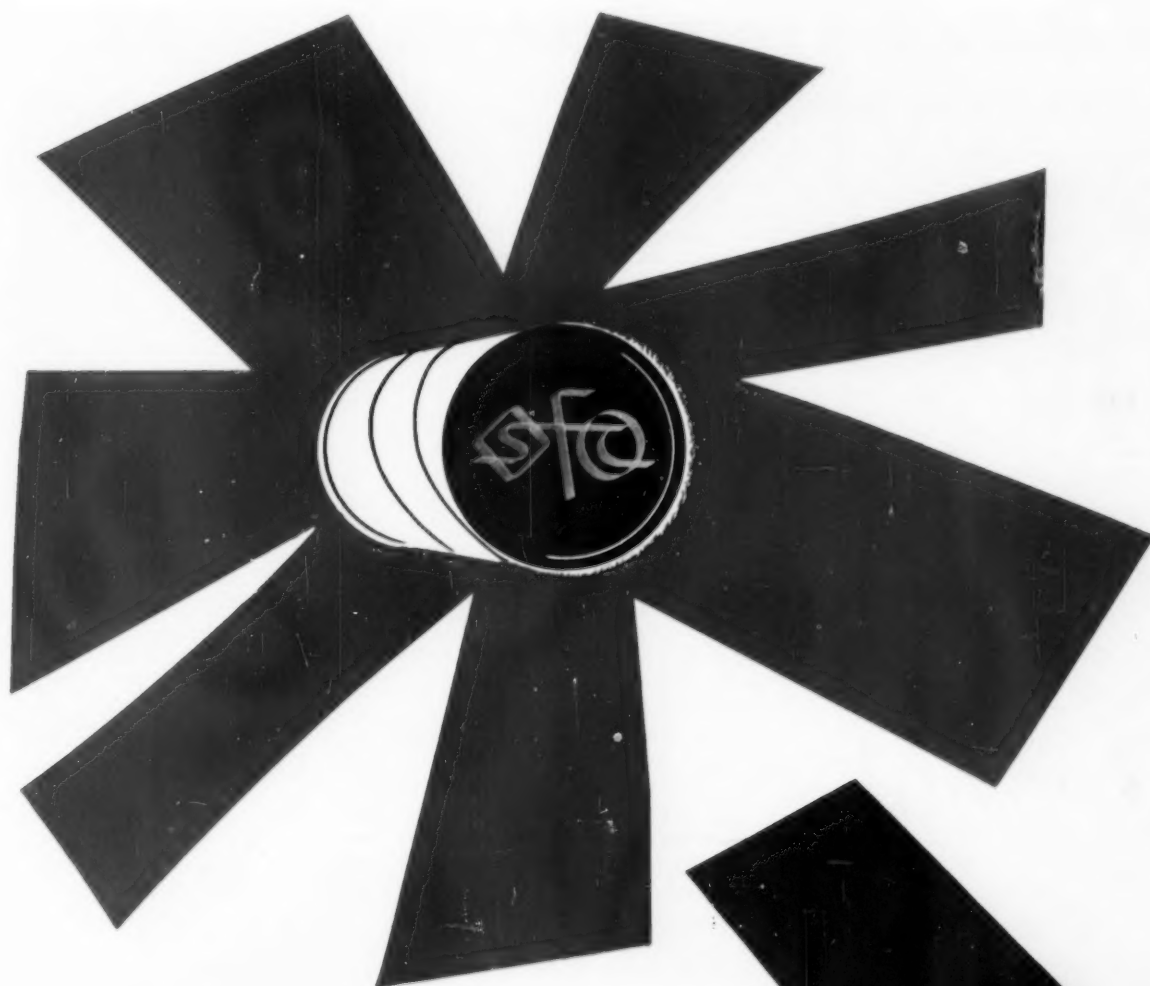
Gaylord Container Corp. of St. Louis and Crown Zellerbach Corp. of San Francisco have merged to form a new company, Gaylord Container Corp., a wholly owned subsidiary of Crown Zellerbach. St. Louis directors elected are: Edwin J. Spiegel, Vertrees Young, Joseph M. Arndt, Fred R. Buhrmaster, Clair S. Cullenbine and William P. Hicks. St. Louisians named divisional vice presidents are: Mr. Buhrmaster, Dudley W. Dehoney, Leslie W. Gould, Mr. Hicks, Mr. Hunt and H. Sam Priest.

Crown Zellerbach Corp. has promoted Leo Jacobs to Eastern division sales manager for distributor sales. Mr. Jacobs will work out of the Crown Zellerbach New York office.

Crown Zellerbach Corp. announces the following management personnel changes: R. R. Edwards, formerly vice president in charge of manufacturing for Canada, becomes manager of bag and bag paper production, with headquarters in San Francisco; R. J. Schadt, resident manager, St. Helens, Ore., succeeds Mr. Edwards in Vancouver, B. C.; R. A. Dupuis, assistant mill manager, Camas, Wash., replaces Mr. Dupuis and J. M. Miller, plant engineer, Camas, becomes manager of engineering.

Ben-Mont Papers, Inc., Bennington, Vt., has announced the promotion of Joseph T. Jaret to national field sales manager, with headquarters in New York. Robert G. Moore has been made field sales manager for the Central States, with an office in Chicago. Keith E. Comey will succeed Mr. Jaret as advertising and sales promotion manager in Bennington.

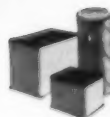
Press Release, Inc., New York public relations organization, has added the facilities of Package Design, Inc., to its present services. Package Design, Inc.,



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**SEFTON
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CAN CO.**

New ways to cut packaging costs, to improve product protection and sales—the goals of continuing research in package engineering and design.



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SAVE TIME—SAVE SPACE

**USE OUR WAREHOUSE FACILITIES
—IMMEDIATE DELIVERY FROM
STOCK ON ALL ITEMS!**

	1 GLASS CONTAINERS OF ALL DESCRIPTIONS (Representing Owens-Illinois Glass Company)
	2 POLYETHYLENE CONTAINERS (From 1/2 oz. thru 13 gals.) (Representing Plax Corporation)
	3 RIGID POLYSTYRENE CONTAINERS (Representing Cellu- plastic Corporation)
	4 METAL & MOLDED CLOSURES (stock and pri- vate design) (Repre- senting Owens-Illinois Glass Co. and Terkel- sen Machine Co.)
	5 CELLULOSE BANDS (Representing Sylvania Division of American Viscose Corp.)
	6 & 7 GLASS AND POLYETHYLENE CARBOYS (Representing Plax Corp.)



Our facilities assure you of immediate deliveries, and our thirty years of experience in Complete Packaging Service guarantees expert attention to your requirements. Nowhere, but nowhere, can you find such extensive, complete resources readily available to you at all times. We invite your inquiries.

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ENGRAVED CYLINDERS FOR GRAVURE PRINTING

To help you get top-quality gravure printing on all types of packaging materials, Rotocraft manufactures the finest copper-plated base cylinders obtainable. Rotocraft engraves the cylinder to your specifications, then further protects it with a hard chrome-plate finish.

These cylinders are used for printing on paper, board, and foil; they also print perfectly on cellophane and all other plastic films. Rotocraft cylinders are ideal for all color printing up to four color process.

We can supply cylinders in any width to fit your web. Write to us or telephone today for additional information.

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Fasten it better and faster with

BOSTITCH
STAPLERS AND STAPLES



Plants and people

will be directed by Roy C. Madison, formerly packaging coordinator for Pepperell Mfg. Co., and the new design studios will be located at 30 Church St., New York, with sales and executive offices at 220 E. 42 St., New York. Press Release, pointing out the growing importance of packaging and design in the field of public relations, will now provide its clients with research and development facilities for product packaging, logotypes, trademarks, specialized booklets and annual reports.

Kenneth Michel is general manager of the newly created Sunex division of **The Sun Tube Corp.**, Hillside, N. J., set up to manufacture aerosol valves, polyethylene bottles and plastic closures. **Richard McCarthy** succeeds Mr. Michel



(L. to r.) Alexander, McCarthy, Goff, Michel

as sales manager of the company's impact extrusion division. **Donald Goff** is now production manager of the Sunex division. **Claude Alexander** has been named assistant to the president.

Establishment of an Eastern office at 27 E. Lancaster Ave., Downingtown, Pa., has been announced by the **Black-Clawson Co.** The office, which will service accounts in New York, Pennsylvania, New Jersey, Delaware and Maryland, will be under the direction of **Emerson N. Glauner, Sr.**, Eastern sales representative. **L. P. Ellison** will be sales engineer.

Roy J. Bristol has been named assistant sales manager of **The Flintkote Co.**, Container Div., Southern sales district.

The Mobile paperboard mill division of **Stone Container Corp.** has launched a \$500,000 expansion program.

Western Label Co. has announced the removal of its offices and plant to 5305-5319 Alhambra Ave., Los Angeles 32.

W. J. Bailey, vice president and director of **West Virginia Pulp & Paper Co.**, New York, has been named president of **American Forest Products Industries, Inc.**, sponsor of the American Tree Farms system which encourages woodlands owners to practice good forestry.

Aerosol Techniques, Inc., Bridgeport, Conn., has appointed **Norbert G. Smith** as director of manufacturing and re-

For sales promotion, advertising and informative labeling use Avery pressure-sensitive labels



—what a difference they make on the product, package and at point of sale!

NEW!

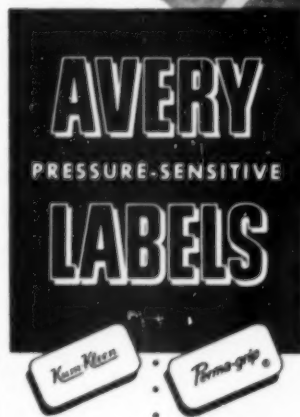
LABELING IS FAST AND EASY WITH AVERY'S NEW "55" ELECTRIC DISPENSER

It's completely automatic — ask for a demonstration!

Avery pressure-sensitive labels can save you time, labor and money—they adhere firmly to all hard-to-label surfaces without moistening—surfaces such as cellophane, metallic paper, pliofilm, polyethylene, glass, metal, plastic, ceramics, varnished cardboard or wood. They're practical and economical—and as packaging labels—can be applied four times as fast as water moistened labels. There's no waste motion in handling or sorting loose labels—no sticky fingers, messy labels, or spoiled packages.

They can be produced to your exact size, shape or color and individually die-cut on sheets or in rolls for manual or automatic labeling—and you can depend upon Avery's fast delivery promises!

Dramatize your package the easy way—cut labeling costs—*build sales* with AVERY pressure-sensitive labels! Ask for samples and further information. **DO IT NOW!**



Kum-Kleen when you want a REMOVABLE label

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- ☐ I'd like to know more about the new "55" dispenser.
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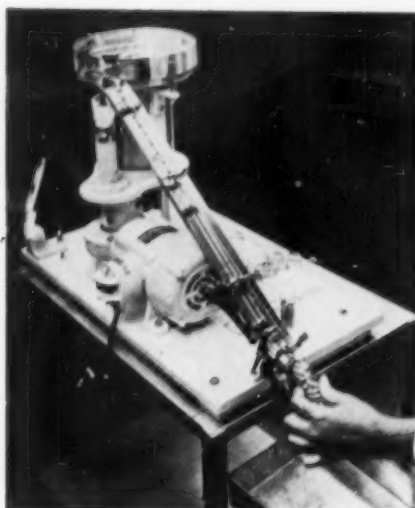
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Tablet-capsule counting
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**Comes complete . . .
no additional parts
needed for any operation!**

1. Adapts to more counting-filling jobs than any other machine available . . . fills into any container!
2. Changeover time from item to item: approximately 5 minutes.
3. Will stack lozenges and tablets of all sizes.
4. Standard machine, with no extra parts, is capable of counting and filling uncoated tablets from 3/16" up . . . capsules from No. 5 to No. 000 . . . coated tablets from 9/32 to 19/32 inches.
5. Unmatched for ease of operation and clean-up.



Why not write today for descriptive brochure.

Notice: You will have an opportunity to see a demonstration of Rotax machines at the Boston Room, Hotel Statler, New York City, on January 16 and 17, 1956.

THE BURNET COMPANY

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Established 1889

Sole U.S. and Canada distributor of Rotax

The Quality Shows...

in DECORATIONS on POLYETHYLENE

by MODERN ART
PRINTING
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• "Don't judge a book by its cover," advises an old saying. Trouble is, the public usually *does*. In fact, the sales success of a product may be decided largely by the quality of the decorations on its container. Especially if it's a hard-to-print polyethylene bottle.

Modern Art Printing Company is known for the "Cadillac quality" of its hot-stamp decorating work on polyethylene bottles. Now, by reorganizing its plant facilities, Modern Art has made substantial savings in the cost of this attractive, wear-resistant printing. Write or phone today to learn how your polyethylene containers can gain the sales appeal that comes from premium-quality decorations by Modern Art.



"Originators of hot-stamp printing on polyethylene bottles"

MODERN ART PRINTING CO., INC.

34-36 56th STREET • WOODSIDE 77, L. I., NEW YORK
Phone: DEfender 5-7300

Plants and people

search. Donald MacMurray will represent the company as district sales manager. Dr. Peter Sgarimella has been named chief chemist and Mrs. Ethel Walsh is sales service manager and administrative assistant to the president.

The following appointments have been announced by the Packing Equipment Div., Food Machinery & Chemical Corp., Riverside, Calif.: J. M. Devers, divisional director of marketing; I. J. Blondon, general sales manager; L. M. Emanuel, sales manager, fruit and vegetable industries; Lee Harrel, manager of the Southwest district, and Newell Carter, manager of the Santa Paula branch office.

R. B. Long, field representative for Bemis Bro. Bag Co., St. Louis, Mo., has announced his retirement as of Jan. 31. Mr. Long joined Bemis in 1902.

Hinde & Dauch Paper Co. has begun production at its new plant in the Fairfax Industrial District, Kansas City, Kan. The new one-floor plant has more than twice the productive capacity of the company's old Kansas City plant.

Phillips Associates, Oakland, Calif., have extended their activities to cover Southern California, with William M. Norton as their representative.

Cornell Paperboard Products Co., Milwaukee, Wis., has formed a subsidiary company, Carton Craftsmen Corp., which has acquired the business of Carton Craftsmen, Inc., of Chicago, manufacturer of folding cartons.

Federal Adhesives Corp., Brooklyn, has announced the appointment of Ira M. Schafer to the technical staff of its Federal Latex Corp. division.

Mosstype Corp. has consolidated all general office and manufacturing operations in its new, enlarged plant at 150 Franklin Turnpike, Waldwick, N. J.

George F. Lang, president of the Carr-Lowrey Glass Co., Baltimore, and a director of Anchor-Hocking Glass Corp., Lancaster, Ohio, died Nov. 30 in Baltimore, Md., at the age of 71. A national figure in the glass industry, he was a founder and first president of the Glass Container Mfrs. Institute.

Abraham Feigenson, secretary-treasurer of Chester Packaging Products Corp. and associated divisions, died suddenly at his home on Nov. 27 at the age of 44. One of the pioneers of thin-film polyethylene extrusion, Mr. Feigenson was particularly active in gaining consumer acceptance for polyethylene film.

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FOR PRODUCTION LINE
MARKING, DATING AND CODING

Industrial Marking Equipment is engineered to lower your costs — raise your operating standards. It is unmatched for high speed performance, and economical, efficient operation.

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bags
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pails
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etc.



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Line Markers



Multi-Wall Bag Printer

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454 BALTIC STREET company, inc.
BROOKLYN 17, N.Y. MAin 4-2601

NON-SKID INK

Reduces sliding and shifting of bags
when printed with **HYDRY** non-skid ink

This new odorless, fast drying ink is available in any range of colors. HYDRY non-skid inks provide a built-in non-skid surface for paper bags, sacks, corrugated cartons and other packages. HYDRY ink is an effective solution to many problems of package handling. Write for samples and details.

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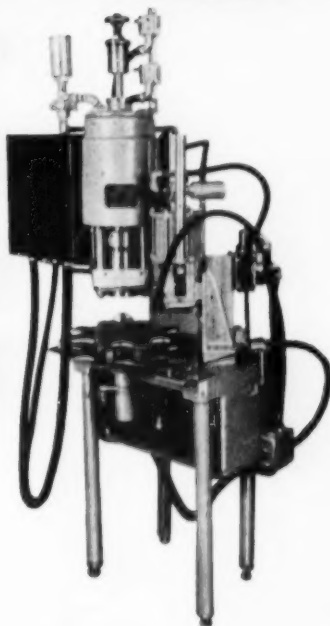
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**AUTOMATIC
FEEDER**

**VACUUM
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**PROPELLENT
FILLER**



- ★ Most dependable unit available today for pressure filling
- ★ Handles all three operations with speed and adaptability
- ★ Adjustable to any amount of propellant, at speeds of 20 to 50 containers per minute, per head
- ★ Accurate, trouble-free operation
- ★ May be used with existing equipment

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No. 500 Series
Pres-O Valve
For FOAM or SPRAY

Newest and best valve for every product, foam or spray. Exceptionally fast filling. Accurate discharge rate. Approved for all products.

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For your information

The Packaging Assn. of Canada is sponsoring a new venture—the National Packaging Convention, scheduled for March 5, 6 and 7, at the King Edward Hotel, Toronto. The three-day convention will cover machinery and equipment, design, point-of-purchase devices and bulk packaging. The 3rd National TIPAC Forum to be held March 6 will cover all types of containers and packaging, printing, materials handling and testing. Award winners and all entries submitted in the 1956 Canadian Packaging Design and Point-of-Purchase National Competitions will be shown.

B. V. Schaugh of National Adhesives (Canada), Ltd., was elected PAC president for the coming year at the recent annual meeting held in conjunction with the 4th Canadian National Exposition. Highlight of the PAC annual banquet was the presentation of the Gold Award for outstanding contribution to Canada's packaging field to Melville H. McArthur of the Hinde & Dauch Paper Co. of Canada, Ltd. The 5th Canadian National Packaging Exposition will be held Nov. 6, 7 and 8, at the CNE Automotive Bldg., Toronto.

PAC also has announced that the new address of the association's offices is 1 St. Clair Ave. W., Toronto 7.

A new method of designating awards has been adopted by the Lithographers National Assn. for its Annual Lithographic Awards Competition. Six Awards Certificates of equal merit and distinction will be given in each of 45 competition classifications; first, second and third awards and honorable mentions will be eliminated. Announcement brochures and entry blanks for the forthcoming 6th Awards Competition will be distributed this month. The brochure this year has been designed by Tanner-Brown, Inc., Long Island City, N.Y.

First of a series of regional gatherings of the Produce Packaging Assn. will be held at the Hotel William Penn, Pittsburgh, Pa., Jan. 11. The meeting will consider the problems and potentials of the leafy green segment of the fresh vegetable packaging industry. Following this Northeast meeting, meetings will be held in the Midwest, Southeast, Southwest and Pacific Coast regions.

The American Rack Merchandisers Institute has announced that it will make a national non-food supermarket point-of-sale display award in addition to its second annual self-service packaging award during ARMI's 5th Anniversary national convention in Chicago, Jan. 14-20. Entries for the point-of-sale contest are being accepted in the form of photographs in the following categories: cart wraps, display racks, cartons and shippers, dump bins, end displays, floor

merchandisers, floor stands, promotional signs, shelf extenders, shelf racks and store banners. For the packaging contest, eligible entries include any self-service non-food package introduced in 1955.

The Glass Container Mfrs. Institute will double the appropriations for advertising its "Bottled in Glass" campaign in the labor press during 1956. Expansion is also planned for visual education aids for schools.

The Point-of-Purchase Advertising Institute's 10th Annual Symposium and Exhibit, to be held April 10-12 at the Hotel Sheraton-Astor, New York, will have more than 100 booths featuring the latest in all types of in-store and window displays.

The 49th Annual Exhibit of the Canning Machinery & Supplies Assn. will start Wednesday, Jan. 18, a day earlier than previously announced. The exhibit, to be held in Atlantic City's Convention Hall, will be open from 12 noon to 5:30 p.m. on Wednesday, Jan. 18; from 9:30 a.m. to 5:30 p.m. on Thursday and Friday, Jan. 19 and 20, and from 9:30 to 5 p.m. on Saturday, Jan. 21.

New officers of the Society of Industrial Packaging & Materials Handling Engineers are: Earl B. Candell of General Electric Co., board chairman; John W. McReynolds of Kraft Foods Co., presi-

dent; John Mount of Insurance Co. of North America, executive vice president; A. O. Manger of Rathborne, Hair & Ridgway Box Co., W. L. Utley of Towmotor Corp., and E. P. Troeger of Douglas Aircraft Co., Inc., vice presidents; M. C. Weisenborn of Jiffy Mfg. Co., treasurer; R. C. Cragg of Gould-National Batteries, Inc., secretary. The organization, which is celebrating its 10th anniversary this year, has a membership of nearly 2,000, with 18 chapters.

A one-day conference on new trends and developments will be held Jan. 17 at the Hotel Schroeder, Milwaukee, by the Wisconsin chapters of the American Materials Handling Society and the Society of Industrial Packaging & Materials Handling Engineers.

The 7th National Plastics Exposition, sponsored by The Society of the Plastics Industry, will be held in the new Coliseum in New York, June 11-15.

The Fifth Annual Package Design Seminar, open to business executives and those concerned with decisions involving packaging, will be held at New York University for 14 consecutive Wednesday evenings beginning Feb. 8. Registration may be made at the Div. of General Education, New York University. Robert I. Goldberg, packaging designer and consultant and fellow of the Package Designers Council, will be seminar director. Scheduled to lead individual seminars and analyze current problems are Pearl Hagens of MODERN PACKAGING; Egmont Arens, Frank Gianninoto and Jim Nash, packaging designers and members of the Package Designers Council; Shy Rosen, vice president of Milprint, Inc.; Willard Deveneau of the National Folding Box Co., and Allyn C. Beardsell of Container Laboratories, Inc. Popular during the past four years because of its marketing and sales approach to the packaging of merchandise, the seminar strives to present each topic from the manufacturer, designer and supplier's points of view. Subjects include: the dynamics of color, planning for the market, the appeal of trademarks, graphic design techniques, research for package design, evaluation of package design, evaluation of packaging materials and an analysis of the Age of Packaging.

Prof. Frederick C. Winter of Columbia University, New York, has announced that Package Engineering Part II will be offered during the Spring Session. Lectures will be given Wednesday evenings at 7:10 p.m. in the Engineering Bldg. from Feb. 8 through May 16. For those working for a degree, the final examination will be given May 23. This course, GSIE 248, follows Package Engineering Part I GSIE 247 and together the two courses cover all types of pack-

A new cover artist

With this issue, MODERN PACKAGING begins a new series of cover designs by the outstanding artist and designer, Lester Beall. The *Industry Survey* series of articles associated with the cover illustration continues.



Lester Beall

Mr. Beall needs no introduction to the packaging field. An artist who is both imaginative and practical, his work has encompassed product, advertising and package design for such familiar products as Brach Candies, Pond's, Ballantine's, Simoniz, Ward Baking Co. and John Labatt, Ltd. His art direction guides Upjohn's *Scope*. Since 1934, his name has been prominent among the winners of annual awards from the Art Directors Clubs of New York and Chicago, the American Institute of Graphic Arts and the Society of Typographic Arts.

Wherever the signature "Lester Beall" appears it is a hallmark of artistic integrity and MODERN PACKAGING is proud to have it on its covers for 1956.

Your Vision.. Our Variety

Make the perfect package



Use your imagination and you will see your product in a Clearsite Plastic Container. Somewhere within our infinite selection of sizes, shapes, closures and colors, there's the perfect package for you. You'll "save" with feather-light, shatter-proof Clearsite Containers by cutting freight costs and breakage. You'll "sell" with sparkling-bright Clearsite because any trade-mark or label can be multi-color printed right on the container.

Write for free samples and descriptive literature.



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IMPROVEMENT
in PAINT CAN MARKING



The problem of paper labels on cans becoming dirty and torn (and presenting a poor sales appearance on the retailer's shelf) plagued a typical paint manufacturer, until he began using the Markem Method. Now he's imprinting variable data (color, batch number, etc.) on 1500 lithographed cans per hour with a Markem 70AF machine. Changing imprint simply means sliding new type into the masterplate (instead of ordering 2000 new labels). Whether it's a container, product, part or tag you're marking—for decoration, designation or identification—ask Markem. Thousands have, for the past 40 years. Write Markem Machine Co., Keene 1, New Hampshire.



For your information

aging, with lectures given by 22 men who have made a career of packaging. Write to Prof. Winter for information forms, "Letter of Intent" and "Package Engineering" brochure, giving a schedule of lecture subjects.

The Office of Technical Services, U. S. Dept. of Commerce, has released a report of research by the Navy on better methods of packaging quart oil cans for export. The report, PB 111709, "Improved Methods of Export Packaging Quart Oil Cans," Bureau of Supplies and Accounts, U. S. Navy, May, 1955, is available at \$1.50 per copy from OTS, U. S. Dept. of Commerce, Washington 25, D. C.

The American Society for Testing Materials has published the 6th edition of "ASTM Standards on Paper and Paper Products and Shipping Containers (With Related Information)." A total of 101 designations are included, together with five new and 10 revised standards. Copies are available at \$3.75 each from ASTM Headquarters, 1916 Race St., Philadelphia 3, Pa.

The Super Market Institute, 500 N. Dearborn St., Chicago, has published a

booklet on controlling pilferage and bad check losses in stores. It is estimated that the extent of pilferage may rise as high as \$300 million annually. Supermarkets with a 20-million-dollar loss are in second place as victims of bad checks, with department stores in first place. The Institute is urging supermarkets to get behind organized campaigns on a city or area basis and will provide details of such campaigns to interested operators.

"1956 Guide to Improved Packaging With Bakelite Plastics and Resins," published by Bakelite Co., previews the latest applications of plastic films, coatings, molded and blown plastics, adhesives and rigid sheets for both packaging and display. Copies of this booklet, J-658, are available from Bakelite Co., Div. of Union Carbide & Carbon Corp., 300 Madison Ave., New York 17.

The Business and Defense Services Administration, U. S. Dept. of Commerce, has urged manufacturers and business to make wider use of the Government's "Index of Patented Inventions," to stimulate further the national economy. This index contains brief descriptions of more than 21,000 inventions. These "Patent Abstracts" are available at nominal cost in any Dept. of Commerce Field Office or the Office of Technical Services, Dept. of Commerce, Washington, D. C.

A new half-hour motion picture, "Production 5118," has been produced by The Champion Paper & Fibre Co. on the theme: "Can a man be shackled by his inability to make others understand him?" It will be made available early in 1956 for showing to industrial and civic groups, club, church and similar organization gatherings. To obtain the film, write to the Public Relations Dept., The Champion Paper & Fibre Co., Hamilton, Ohio.

At its semi-annual meeting recently, the National Fibre Can & Tube Assn. determined to promote both industry and individual company developments of products with substantial new characteristics, destined to compete with metal, glass, plastics and other products, both for packaging and non-packaging uses. Packaging engineering specialists will survey industries to ascertain where fibre cans and tubes may substitute economically for more expensive methods of packaging. A greatly expanded public relations program to be conducted by Paul S. Hanway, managing director, also is planned.

Koppers Co., Inc., has issued a new technical bulletin describing in detail the application of its Dylan low-pressure polyethylene for application in injection-molded pieces. "Dylan Poly-

What's doing

- Jan. 8-11—Washington Gift Show, Hotel Willard, Washington, D. C.
- Jan. 16-21—National Cannery Assn., National Food Brokers Assn., Atlantic City, N. J.
- Jan. 18-20—Society of Plastic Engineers, 12th Annual National Technical Conference, Hotel Statler, Cleveland, Ohio.
- Jan. 19-21—Canning Machinery & Supplies Assn., 49th Annual Exhibit, Atlantic City, N. J.
- Jan. 22-24—National Wooden Pallet Mfrs. Assn., 9th Semi-Annual Meeting, Ellinor Village, Daytona Beach, Fla.
- Jan. 23-26—Plant Maintenance & Engineering Show and Conference, Convention Hall, Philadelphia, Pa.
- Jan. 29-Feb. 1—National Frozen Food Distributors Assn., Convention & Exhibition, Waldorf-Astoria, New York.
- Jan. 29-Feb. 1—National Advertising Industries Exposition, Morrison Hotel, Chicago.
- Feb. 6-7—National Wooden Box Assn., Annual Meeting, Shamrock Hotel, Houston, Tex.
- Feb. 7-8—Society of the Plastics Industry, Inc., 11th Annual Reinforced Plastics Division Conference, Chalfonte-Haddon Hall, Atlantic City, N. J.
- Feb. 14-16—Sales Promotion Show, Municipal Auditorium, Miami, Fla.
- Feb. 18-26—International Food Show, Wanamaker's, New York.

STRONGER! TIGHTER!



give the green light to packaging production



go for SPEED

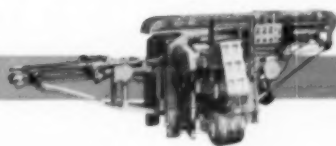
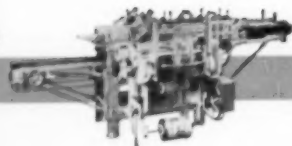
Job designed engineering assures you of attractively-wrapped packages that stay sealed. Battle Creek knows the importance of providing exactly the right machine for a job. Exactly right . . . That means *Continuous Flow* high speed, low-cost production and show-case packages every time.

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- Up to 175 beautifully wrapped packages a minute
- Built for rugged, daily production
- More sell in neater, more durable wrappings

Continuous Flow Packaging GIVES THE GREEN LIGHT TO PACKAGING PRODUCTION



WOULD YOU LIKE TO SEE YOUR PRODUCT PACKAGED?

as only *Battle Creek* machines can produce them

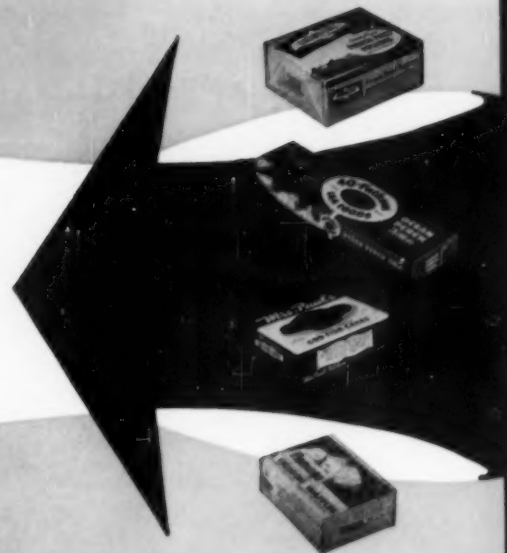
Send us a couple each of all the packages you are interested to see wrapped and check off any of the following choices of wrapping materials — Cellophane (), laminated foil (), waxed paper (), waxed glassine (), Kraft or decorative papers using adhesives ().

We will wrap and return them promptly to you with our recommendations, including a comparative analysis of sheet sizes used and other possible material savings.

If you have special wrapping problems, or bundle or group assemblies to be prepared, please send enough packages to create at least one group assembly.

If you have questions, a short letter of review would be helpful and appreciated.

And let us know where you want the sample packages and analysis sent.



TECHNICAL SPECIFICATIONS

MODEL 44 — for trays or closed boxes

FLOOR SPACE: 12 ft. long x 4 1/2 ft. wide
RANGE OF SIZES HANDLED:

Length 4 1/2" to 10 3/4"
Width 2 1/4" to 6"
Height 1" to 3"

PAPER SPECIFICATIONS: Cellophane, waxed glassine or waxed sulphite papers, self sealing foil, or other self sealing papers. Rolls may be wound on 3" or 6" cores, not to exceed 14" in diameter. Roll width: 7" to 18"
Cut off: 5 1/2" to 14"

SPEED: 40 to 100 wrapped packages per minute

SHIPPING WEIGHT: 3300 lbs.

TYPE OF FOLD: Progressive folds on ends —longitudinal seam on broad panel.

ADJUSTABILITY: Not over 10 minutes are required to change from one size to another.

TYPE OF SEAL: Electric heat plates.

ELECTRICAL DATA: Motor—1 H.P. 220/440 volts, 60 cycle, 3 phase
Heaters — 2400 watts, thermostatically controlled, 110 or 220 volts

OPTIONAL ATTACHMENTS: Electric eye —for handling printed papers registered around the six panels of the carton; thermoplastic label feeder for heat sealing labels; "one shot" lubrication; code daters; refrigeration attachment.

MODEL 51 — for trays or closed boxes

FLOOR SPACE: 12' 9" long x 4' 6" wide
RANGE OF SIZES HANDLED:

(51)	(51-L)
Length 3 1/4" to 5 1/2"	6" to 8"
Width 2 1/2" to 4 1/8"	3" to 4"
Height 3/4" to 2"	3/4" to 2"

PAPER SPECIFICATIONS: Cellophane, wax-coated papers, laminated papers, self-sealing foil, all in roll form, on either 3" or 6" cores. Also double roll holders can be furnished to handle a combination of self-sealing foil and wax-coated sheets at the same time.

(51)	(51-L)
Roll width: 8" to 14 1/2"	8" to 14 1/2"
Cut off: 5 1/2" to 8"	7 1/2" to 10 1/4"

SPEED: 80 to 175 per minute, depending upon size and style of package and type of contents.

SHIPPING WEIGHT: About 3000 lbs.

TYPE OF FOLD: Envelope fold on ends of carton (with purchaser's choice of last fold made down from the top or up from the bottom of the carton). Longitudinal seam on broad panel of carton.

ADJUSTABILITY: It requires about 15-20 minutes to change from one size carton to another.

TYPE OF SEAL: Heat, electronically controlled.

ELECTRICAL DATA: Motor—1 H.P. 220/440 volts, 60 cycle, 3 phase
Heaters—approximately 2400 watts

OPTIONAL ATTACHMENTS: Model 51 may be equipped with optional attachments that increase production efficiency.

MODEL FW-35

FLOOR SPACE: 8 ft. long x 5 1/2 ft. wide

RANGE OF SIZES HANDLED:

Width 1 1/2" to 5"
Length 2" to 10"
Height 3/4" to 2 1/2"

PAPER SPECIFICATIONS: Waxed paper, waxed glassine, cellophane, clear or printed, Reyseal or laminated foils in roll form wound on 3" cores not to exceed 14" in diameter.

SPEED: 40 to 90 or more per minute.

SHIPPING WEIGHT: About 2000 pounds crated.

TYPE OF FOLD: Envelope fold on ends, longitudinal seal on broad panel.

ADJUSTABILITY: It requires from 15 to 20 minutes to change package sizes on the FW-35. All sizes handled by complete interchange of job designed equipment.

ELECTRICAL DATA: Motor—1 H.P.
Heaters—1800 watts and up according to size of package

OPTIONAL ATTACHMENTS: Electric eye —for handling printed papers registered around the six panels of the carton. Thermoplastic label feeder for heat sealing labels. "One shot" lubrication. Refrigerated discharge.

Synchronizing Automation

Handle intermittent flow of packages from previous packing operations without an operator.

Job Designed

Each machine custom-finished to the customer's particular needs.

Controlled Sealing

Calibrated heat controls handle the latest heat-seal papers with precision results.

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"Continuous Flow"



For your information

ethylene for Injection Molding," presents comprehensive data not previously reported in connection with this plastic material. The bulletin, C-5-225, may be had from Chemical Div., Koppers Co., Inc., 1301 Koppers Bldg., Pittsburgh 19.



Bland

T. N. Bland, president of Fibreboard Products, Inc., San Francisco, was re-elected president of the National Paperboard Assn. at its recent annual meeting. Mr. Bland is the first member of the association from the Pacific Coast to be president.

Winners in the 11th Annual Folding Carton Competition sponsored by the Folding Paper Box Assn. of America will be announced at San Francisco, March 10-12, in connection with FPBA's 1956 convention. The prize winners will be shown at major cities across the country.

Robert I. Goldberg, packaging designer and fellow of the Package Designers Council, will be chairman of a seminar on package design at the Springfield Museum of Fine Arts, Springfield, Mass. Feb. 7. Entitled "Designing Packages That Sell on Sight," the seminar will be a feature of an exhibit of current packaging design. More than 30 packages will be on display during February. Among the designers represented in the exhibit are Egmont Arens, Harry Lapow, Alan Berni, Mr. Goldberg, Gerald Stahl, Marjorie Markley, Norbert Jay, Ernst Ehrman, Robert Zeidman, Fred Brauer and William Roy Madison. Talks will be given by Mr. Jay, Mr. Stahl and Mr. Goldberg as members of the Package Designers Council, followed by panel discussion. Industrial packaging will be handled by Frank Green. Frederick B. Robinson, director of the museum is coordinating the program.

United Mineral & Chemical Corp. has announced the release of a new package-cushioning booklet, "Texlite Absorbs Shock," covering the problem of package cushioning. Copies are available from United Mineral & Chemical Corp., 16 Hudson St., New York 13.

The Packaging Institute, 343 Madison Ave., New York 17, has announced the publication of the second edition of its "Glossary of Packaging Terms." Copies are available at \$6.75 each, with quantity prices upon application.

A new documentary motion-picture film, "The World That Nature Forgot," just released by Monsanto Chemical Co., takes the viewer into the invisible world of molecules and the manufacture of

Something
goes into
this box
besides
napkins....



NATIONAL FOLDING BOX

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FOLDING BOX PLANTS: BOGOTA, N.J.; NEW HAVEN AND VERSAILLES, CONN.; PALMER, MASS.; STEUBENVILLE, OHIO; PITTSBURGH, PA.
PAPER BOARD MILLS: BOGOTA, N.J.; NEW HAVEN, MONTVILLE AND VERSAILLES, CONN.; READING, PA.; STEUBENVILLE, OHIO; WHITE HALL, MD.

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and
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says Robert
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Apply these proved dependable FilmoType features to your operation:

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Send me complete details about the FilmoType photo-composition machine. I am also interested in a free demonstration in my own office.

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For your information

plastics. The film is available without charge to service clubs and other organizations through Monsanto Chemical Co., 445 Park Ave., New York 22.

A new edition of "How to Test Corrugated Boxes," has been issued by Hinde & Dauch. The 24-page booklet may be had by writing the company at Sandusky, Ohio.

A new color reproduction process of special interest to advertisers, packaging concerns and letterpress printers is demonstrated in a new book, "Color by Overprinting" by Donald E. Cooke (The John C. Winston Co., Philadelphia, \$25).

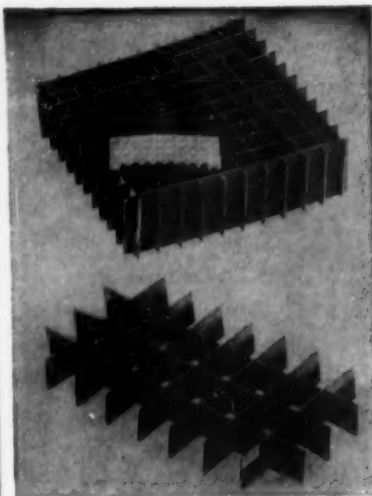
The "Report of the Fortieth National Conference on Weights and Measures," recently issued by the National Bureau of Standards as Miscellaneous Publication 216, contains addresses and committee reports delivered during the 40th National Conference on Weights and Measures held May 16-20, 1955. Copies may be obtained from the Government Printing Office, Washington 25, D. C., for 70 cents each.

"This is Automation," said to be the first industrial motion picture devoted to the history, growth, concept and future of automation, was recently shown by General Electric Co. in New York. The premiere of the film marked the 10th anniversary of the company's More Power to America program. The film was produced principally for manufacturing and engineering audiences, and is part of a More Power to America kit which includes a 36-page bulletin entitled "Automation." The kit is available on a loan or cost basis through the Apparatus Sales Div., Section 6-210, General Electric Co., Schenectady, N. Y.

The B. F. Goodrich Sponge Products Div., Shelton, Conn., have announced publication of "Texlite Absorbs Shock" as a successor to their "Package Cushioning" of a few years ago.

A new 20-page catalog has been released by E. W. Bliss Co. describing their complete line of flanging, beading and thread-rolling machinery for medium and high-speed can-making lines. Copies are available from E. W. Bliss Co., 50 Church St., New York 7.

The second edition of "Drying & Dehydration of Foods," by Harry W. von Loeseck, has been revised to reflect the rapid strides made during the last decade in the field of food dehydration. The book is intended for food technologists and others concerned with the processing and handling of food products. Copies are available from Reinhold Publishing Corp., 430 Park Ave., New York 22.



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**31
CANNERS'
CONVENTIONS
EVERYDAY***



Everyday, in every Hazel-Atlas factory and sales office, packers' problems become our own.

Solving them is as important to us as the furnishing of the glass packersware that protects and sells.

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★ Factories ● Sales Offices

U. S. patents digest

This digest includes each month the more important patents of interest to those who are concerned with packaging materials. Copies of patents are available from the U. S. Patent Office, Washington, at 25 cents each in currency, money order or certified check; postage stamps not accepted. Edited by H. A. Levey.

Package and Mounting for Hypodermic Syringe Assembly. C. O. Kendall (to Becton, Dickinson & Co., Rutherford, N.J.). U.S. 2,720,969, Dec. 18. A package for a hypodermic syringe comprising in combination a syringe barrel, a needle assembly coextensive and in contact therewith, barrel and assembly being relatively rockable, said package being formed of resilient material whereby, with the ends of syringe engaging the ends of said trough, the adjacent parts of barrel and needle assembly will swing past a dead-center position defined by the axial alignment and will bear against the trough base and means forming a part of said body and cooperating with the ends of syringe to prevent an elevation thereof.

Label Feed and Sealing Mechanism. B. A. Arvidson (to Miller Wrapping & Sealing Machine Co., Chicago, Ill.). U.S. 2,720,994, Oct. 18. A device for feeding a continuous strip of perforated material in increments equal to the distance between perforations comprising means adapted rotatably to carry a roll of strip, a guide plate adapted to guide the free end of said strip in a predetermined path, a movable feed finger positioned to engage a perforation in the portion of the strip in guide plate, rotatably mounted feed roller positioned to have strip wrapped partially therearound and normally out of frictional feeding engagement therewith as it is led from the roll to the guide plate and means for rotating the feed roller a distance at least equal to distance between perforations.

Label-Applying Machines. G. W. von Hofe (to New Jersey Machine Corp., Hoboken, N.J.). U.S. 2,720,995, Oct. 18. In a labeling machine, means to support an article to be labeled, a label carrier for delivering a label to an article on support, device mounted on carrier for pressing the label delivered to the article into firm contact with the latter, said device including a rotatably mounted roller and means normally supporting roller on carrier.

Bottle Carrier. C. S. Hasselhoff (to The Eastern Box Co., Baltimore, Md.). U.S. 2,721,001, Oct. 18. In a carrier carton formed from a rectangular box blank, two vertically folded central carrying portions fixed together in continuous face-to-face relation and two receptacles, each receptacle projecting laterally and supported by one of said central carrying portions and comprising three integral walls folded about their respective central carrying portions and fixed thereto along the vertical outside edges of central carrying portion to define central carrying portion, vertical receptacle sides having a rectangular horizontal section, a bottom section integral with

first receptacle side with a separator projection thereon, and a bottom section integral with a second receptacle side oppositely facing first-mentioned side having a separator projection thereon.

Aerosol Containers and Valves Therefor. P. Mehsberg, Fairfield, Conn. U.S. 2,721,010, Oct. 18. Valve means for controlling the discharge of fluid under pressure from a container comprising a tubular valve housing having a transverse wall at the inner end, having an aperture to communicate with the container and a combined resilient valve disk having a cylindrical bore mounted at outer end of housing.

Method and Means for Continuous Filling, Severing and Packaging of Flexible Containers Arranged in Strip Form. E. F. Hiscock, Washington, D.C. U.S. 2,721,017, Oct. 18. A method of packaging materials which consists in providing a strip of limp and unrigid flexible porous woven textile material which is non-thermoplastic and non-heat-sealable, said material having preformed pockets arranged in strip form with closed woven marginal connections between adjacent pockets and with one edge of each pocket opened along a longitudinal edge of strip and with the opposing edge of the strip woven to close said opening edge, moving the strip longitudinally and tensioning the same, successively opening and individually filling the pockets with the desired material, folding and securing a sewn hem to close the pockets along the pocket opened longitudinal edge of the strip, and subsequently individually severing the pockets one from another along the intermediate portions of the woven marginal connections between adjacent pockets.

Filling Machines With Magnetic Stirrups. G. L. N. Meyer (to Geo. J. Meyer Mfg. Co., Cudahy, Wis.). U.S. 2,721,020, Oct. 18. In a can filler, a filler valve adapted to supply material to a steel can, a stirrup adapted to raise the can into engagement with valve for filling and withdrawing the can from the valve at the conclusion of the filling operation.

Bag Closure. C. M. Phipps (to Marathon Corp., Rothschild, Wis.). U.S. 2,721,023, Oct. 18. A bag closure formed from a flexible blank having an adhesive on its under surface and divided in connected panels consisting only of a pair of adjacent inner panels insertable within the mouth of a bag and a pair of outer panels adaptable to overlie the walls of a bag adjacent the mouth thereof, each of said outer panels being hingedly connected to an end of one of inner panels, one inner panel having a shoulder-like projection on each side

edge adjacent the end of panel to which one of outer panels is connected and adapted to contact the mouth of a bag to prevent complete insertion of inner panel therein.

Dispensers for Pressure-Sensitive Tape. A. P. Krueger (to Derby Sealers, Inc., Derby, Conn.). U.S. 2,721,075, Oct. 18. In a device for dispensing pressure-sensitive tape, a frame, means for mounting a supply roll of tape thereon, a feed roll rotatably mounted on frame to which the tacky side of the tape adheres, a resilient presser member having a body portion engaging the non-tacky side of the tape for urging the tape against the surface of the feed roll to increase adherence of tape thereto.

Ribbed Plug-Type Cap for Plastic Extrusion Tube Container. A. Nichols (to Cellulaplastic Corp., a corporation of New Jersey). U.S. 2,721,595, Oct. 25. A cap adapted to seal the mouth of an extrusion tube container, said cap comprising a plug of plastic material adapted to fit into the open mouth of the container, said plug having ribs positioned on and around the exterior of surface thereof, ribs extending downwardly from top of plug and terminating in cam surfaces tapering down to exterior of plug.

Box-Blank Taping Machine. M. G. Shenigo (to Clifford D. Keely, West Englewood, N.J.). U.S. 2,721,670, Oct. 25. A machine for applying tape to paperboard box blanks comprising a supporting bed, a frame above said bed, means mounting said frame for movement vertically toward and away from bed, an adjustable stop for limiting the downward movement of frame while permitting upward movement thereof, frame being movable by gravity against stop and thereby supported in different positions of vertical adjustment.

Acid-Resistant Container. B. L. Lazard, New York, N.Y. U.S. 2,721,674, Oct. 25. A device comprising an outer rigid container having a top and bottom, an inner container formed of flexible plastic material and substantially tube-like in formation, the ends thereof being sealed and folded in inverted pleat-like formation, split-spring rings within said flexible container adjacent the ends thereof tending to secure the latter against torsional movement within the container, rings being plastic covered.

Container Closure With Transparent Pane. J. D. Reifsnnyder and J. H. Brown (to Lily-Tulip Cup Corp., New York, N.Y.). U.S. 2,721,686, Oct. 25. A paper closure for receptacles of the type having a beaded rim substantially circular in cross-section including in combination: an annular flange of paper or the like sheet material comprising an over-

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hang portion, an inner concave portion substantially semi-circular in cross-section immediately adjacent overhang outwardly in frusto-conical conformation portion and a skirt portion which flares away from concave portion, said annular flange having a basic thickness constituted by a pre-selected number of plies of sheet material intimately secured together.

Shipping Box, J. F. Goss (to Union Bag & Paper Corp., New York, N.Y.). U.S. 2,721,687, Oct. 25. A shipping box comprising a box body, a cover having slots and locking means, means comprising a cut-out portion adjacent a slot and a spring flap defined by cut-out portions and slits extending transversely of the slot with their ends in spaced relation.

Bags With Multi-Ply Walls and Method of Manufacture, I. Makrauer (to Sydney-Thomas Corp., Cincinnati, Ohio). U.S. 2,721,691, Oct. 25. A bag provided with a seamless tubular wall comprised of a plurality of plies formed from a flexible seamless tube doubled upon itself with its opposite free ends in registration opposite a folded end, a common transverse seam joining free ends of tube and opposite sides of bag.

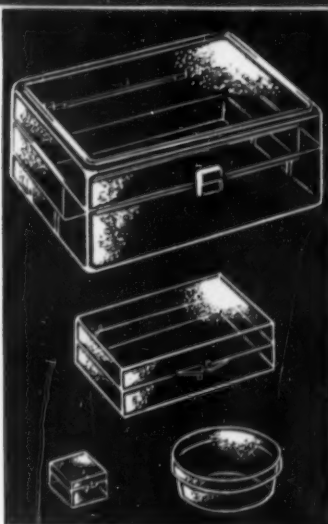
Apparatus for Making Two-Piece Paper Bag, S. G. Yount, Los Angeles, Calif. U.S. 2,722,165, Nov. 1. An apparatus for making paper bags comprising: a pair of oppositely rotatable contiguous cylinders having parallel axes; conveyor rolls arranged to advance a tubular portion of paper to one of cylinders; guide members for directing the path of travel of a tubular portion upon the surface of one cylinder; means on the cylinders cooperable to score the tubular portion adjacent its leading edge, and other means cooperable to score the tubular portion below the first score line.

Blade Dispenser, R. L. Sinclair (to Gillette Co., Boston, Mass.). U.S. 2,722,308, Nov. 1. A blade dispenser comprising a plastic body having upstanding blade-locating ribs therein, a sheet-metal cover having side walls with flanges and a symmetrically located finger opening therein.

Tape Applicator With Separate Cutter, C. W. Vogt, Norwalk, Conn. U.S. 2,722,329, Nov. 1. Tape-dispensing mechanism, comprising a holder having side plates and a forward bridge member, with means to position a roll of tape between the side plates, and means on holder to apply tape material from the roll to a desired surface.

Transparent Wall Display Carton, W. C. Smith (to W. C. Ritchie & Co., Chicago, Ill.). U.S. 2,722,310, Nov. 1. A display carton comprising, in combination, an elongated tubular body rectangular in cross section, fabricated from a transparent material which is semi-rigid and which has an open end, a tab connected to said body portion at open end, tab being yieldably and semi-rigidly fixed in position in a plane at a right angle to the longitudinal axis of said

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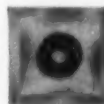
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body and an end closure comprising a rectangular sleeve made of paperboard, sleeve snugly surrounding and slidably engaged over open end of body

Tape Applicator With Cutter Snap Release. C. W. Vogt, Norwalk, Conn. U.S. 2,722,330, Nov. 1. Tape-applying and cutting mechanism, comprising a holder adapted to receive a roll of tape, a pressure tongue on the holder and having an outer pressing face to apply tape to a desired surface and means for biasing tongue outwardly of holder.

Tape Applicator. C. W. Vogt, Norwalk, Conn. U.S. 2,722,331, Nov. 1. An applicator for tape comprising a unitary holder for a roll of tape having a hollow spool, holder having spaced-apart side walls, an arcuate bottom wall connecting and adjacent to one end of side walls and forming a braking surface, with presser member connecting and adjacent to the other ends of side walls.

Machine for Applying Thermoplastically Coated Labels. S. T. Carter (to Geo. J. Meyer Mfg. Co., Cudahy, Wis.). U.S. 2,722,332, Nov. 1. The method of presenting a label at a label-applying point in readiness for its application to an article intended to receive it and wherein the label is coated on one side with an initially non-tacky adhesive.

Can-Labeling Machine. C. M. Hesson (to Chisholm-Ryder Co. of Pennsylvania, Hanover, Pa.). U.S. 2,722,333, Nov. 1. A container-labeling machine comprising a frame having a runway to receive and guide containers through said machine, label-feeding means in machine including a label support movable to runway intermediately at the ends.

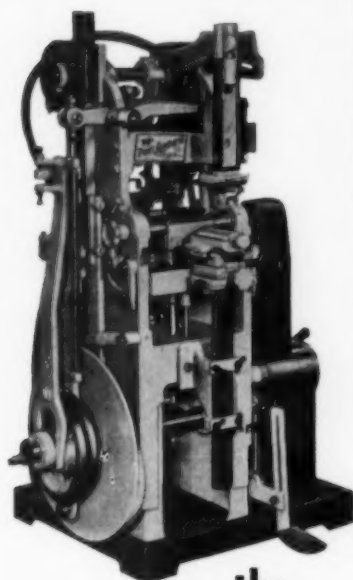
Multiple-Trip Carrier. W. C. George (to Gaylord Container Corp., St. Louis, Mo.). U.S. 2,722,341, Nov. 1. A carrier comprising a tray member having a bottom with upturned bottom flanges and opposing walls, said opposing walls having a downturned upper marginal flange and inturred flanges on the ends of opposing walls, and upstanding partition walls with registering hand-holes through upper portion thereof.

Bag-Filling Machine. R. O. Wilson (to The Woodman Co., Inc., Decatur, Ga.). U.S. 2,722,358, Nov. 1. In a bag-handling mechanism, a traveling bag-holder head; drive means for intermittently moving head around a fixed axis; a pair of members movably mounted on head, bag-engaging and supporting parts at end.

Package. H. V. Kindseth (to Bemis Bro. Bag Co., Minneapolis, Minn.). U.S. 2,722,361, Nov. 1. An elongated rectangular member of transparent flimsy material for receiving and covering a container element, member comprising side walls, a closed end wall and an element-receiving and withdrawing opening in the opposite end, end portions of opposed pairs of side walls adjacent opening defining readily openable and closable closure means for said opening.

Can Holder. C. M. Phipps (to Marathon Corp., Rothschild, Wis.). U.S. 2,722,362, Nov. 1. A can holder comprising a

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365, Nov. 1. A holder for a plurality of chime-ended cans and the like comprising a single blank cut and scored to provide hingedly connected panels.

Carton Handle, R. Guyer (to Waldorf Paper Products Co., St. Paul, Minn.). U.S. 2,723,027, Nov. 8. A handled carton including a tubular body enclosing a series of aligned cylindrical objects, the body including a top panel overlying and parallel to end of each object.

Swivel Pouring-Spout Can, J. Henchert (to Continental Can Co., Inc., New York, N.Y.). U.S. 2,723,059, Nov. 8. A dispensing container comprising an end double seamed to the container body, end within the end seam being concave and having a flat circular panel disposed between the center of the end and the end seam and inclining upwardly from the center to end seam, a hollow upstanding circular rib formed integral with end in said panel and having the upper portion of outer wall of rib deformed outwardly, a dispensing member including a shank portion disposed within rib and in contact with panel.

Container and Closure Comprising a Pouring Spout Therefor, G. T. Rieke (to Rieke Metal Products Corp., Auburn, Ind.). U.S. 2,723,060, Nov. 8. A container having an annular opening therein surrounded by an upstanding substantially cylindrical straight-walled neck terminating at its upper edge in an annular seat extending radially inward of and surrounded by neck to lie therein and within opening, seat being concave in cross section and faced upwardly from container, a closure spout of compressible material having a laterally extending flange portion formed with an annular base convex in cross section adapted to be received in said seat to substantially conform thereto.

Collapsible Cartons, F. W. Wagner (to The Eastern Box Co., Baltimore, Md.). U.S. 2,723,074, Nov. 8. A collapsible carton comprising four vertical side walls and a sectional bottom wall, each of said four side walls comprising a rectangular panel hingedly connected with next adjacent side-wall panel, four approximately triangular bottom-wall panel sections each hinged along one of its side edges to the lower edge of one of said side-wall panels, each bottom-wall panel section overlapping two adjacent sections when the carton is set up to provide a bottom panel of double thickness throughout its entire area.

Handle Construction for Boxes and Cartons, J. V. Mitchell (to Packaging Corp. of America). U.S. 2,723,075, Nov. 8. A handle structure comprising a cover and bottom section telescopically related to each other, top wall of cover section having a pair of aligned and spaced-apart normally closed elongated slits formed therein with corresponding ends of the slits terminating into normally closed slits formed in the top wall and extending transversely of first slits and first slits terminating at corresponding end portions into apertures each of a diameter greater than the width of elongated slits.

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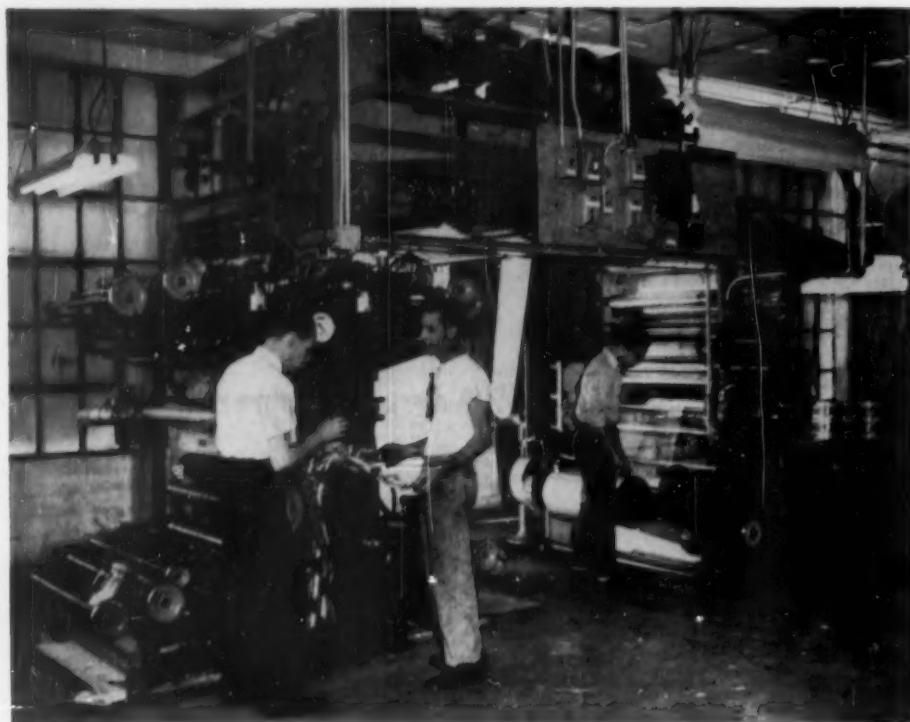
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CARTON SET-UP MACHINES. Illustrated brochure presents specifications of "Tuck-O-Mat" automatic set-up machine that handles reverse tuck cartons up to 3½ by 12 inches and the "Convey-O-Mat," which adds conveyor loading. E. L. Bivens, Inc. (A-657)

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INK OFFSET PREVENTION EQUIPMENT. Illustrated booklet explains principle of dry powder offsetting and shows line of equipment designed to spray the powder, including models for most presses. Oxy-Dry Sprayer Corporation. (A-662)

LABEL IDEAS. Twenty-four page catalog illustrates extensive line of stock gummed-back and pressure-sensitive labels for identification, shipping, and advertising uses. Ever Ready Label Corporation. (A-663)

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PRESSURE-SENSITIVE TAPES. Twenty-four page manual gives extensive presentation of use-information on "Scotch" pressure-sensitive tapes, with emphasis on food packaging applications. Minnesota Mining & Manufacturing Company. (A-669)

CAST VINYL FILMS. Illustrated reprint discusses physical and chemical properties and packaging applications of cast vinyl films; also describes six varieties produced by this company. Bakelite Company. (A-670)

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BOX WRAP PAPERS. Swatch book contains samples of the standard colors of "Colorcast Box Wrap," a drum finished wrapping paper that is non-absorbent, has high finish, smooth surface, brilliant color. Also gives printing information. Champion Paper & Fiber Company. (A-673)

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ELECTRONIC CONTROL EQUIPMENT. Illustrated brochure describes electronic registration controls and speed correction device, designed for use with imprinting, wrapping, inserting, bag machines and other packaging equipment. Machine-O'Matic, Inc. (A-681)

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FILM PACKAGES. 20-page illustrated booklet describes design and production facilities and services offered by company that produces custom packages which seal the product between two thermoplastically-coated sheets. Ivers-Lee Company. (A-683)

BOX WRAPPING MACHINE. Illustrated literature describes, gives step-by-step diagram of operation of machine that glues and applies wrapper to boxes up to 17 by 11 by 4 inches in size. New Jersey Machine Corporation. (A-684)

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New carton closer for large appliances

Whirlpool Corp., St. Joseph, Mich., has become one of the first users of an entirely new type of equipment for closing and sealing one-piece slotted corrugated boxes. It reportedly allows savings of up to 30% in packing labor, employs less floor space, provides a much faster packaging operation and permits the use of a less costly package.

Significant features of the new equipment are a novel bottom-flap closing mechanism and a new method

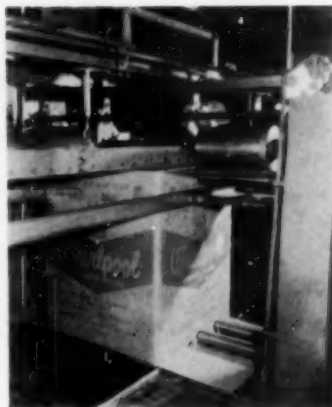
of closing the outer flaps for sealing.

The new bottom-closing device eliminates the work of putting the heavy product inside the box. With the new equipment, the box is put over the product and the inner bottom flaps are closed mechanically beneath it.

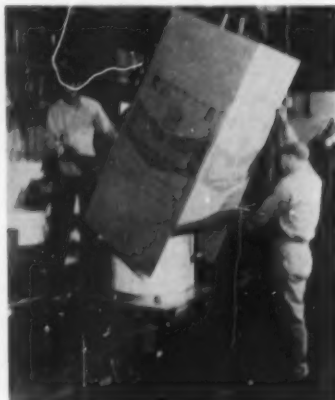
The new flap-closing mechanism is power operated. Instead of plowing the glue-covered flaps shut through the use of stationary guide bars, the machine closes the flaps instantaneously. Thus the equipment can be installed in a small space, saving valuable floor area.

With the new carton closing equipment, the packing of large boxes becomes a straight-line operation, with boxes moving through the machine without the necessity for being pushed back and forth or around a right-angled corner. Each unit to be packed is kept on a solid base at

Box goes over top of washer when new closing equipment is used, so appliance does not have to be lifted. Inner bottom flaps are closed mechanically by retractable rollers, outer flaps turned outwards,



Four flaps are glued at once. Next, moving arms will close flaps on each side instantaneously, two at a time, then carton moves on power-operated belt through compressor.



all times, and jam-ups are avoided.

Whirlpool's equipment is designed for use with conventional slotted one-piece boxes, with no extra scoring being required. The boxes are sealed securely with glue and no steel strapping or other reinforcement is needed. Now in operation on the company's washing-machine packaging lines at Clyde, Ohio, the

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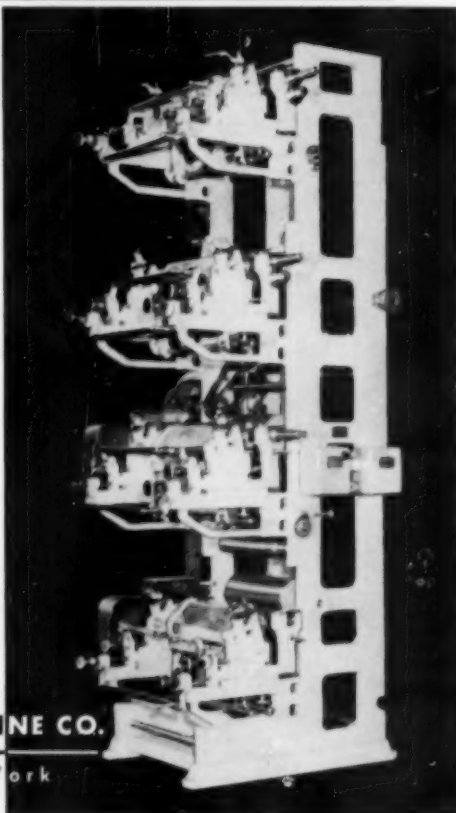
But the fact that it conserves valuable floor space, and fits snugly between a polyethylene film extruder and a bag-maker, is only part of the story. The big news about this "skyscraper" printing press is that it permits continuous two-color printing with *no loss of productive press time* and *no waste of film* between changeovers from one job to the next...prevents profit-stealing over-runs too. It saves space, yes...but, more important, it saves a great deal of time, labor and material.

This unique in-line printing machine is but one example of how MANHASSET comes up with practical answers to difficult printing and converting problems. And it suggests that—if your problem calls for flexible, imaginative and forward thinking—you put it up to MANHASSET.

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A great many cancers can be cured, but only if properly treated before they have begun to spread or "colonize" in other parts of the body.

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For a list of those life-saving warning signals and other facts of *life* about cancer, call the American Cancer Society office nearest you or simply write to "Cancer" in care of your local Post Office.

American Cancer Society



Announcement

*25th National Packaging
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American Management
Association

The March issue of Modern Packaging will be the annual Show* number. It will reach the largest audience in twenty-nine years. It will give advertisers more value than any other single issue in '56. Advertising deadline is February 5th. For rates and other details write Advertising Department, Modern Packaging, 575 Madison Ave., New York 22, N. Y.

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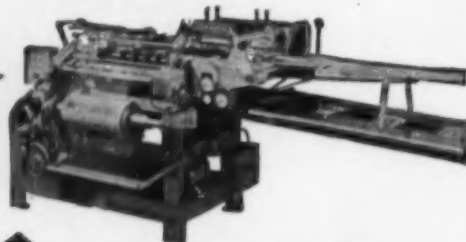
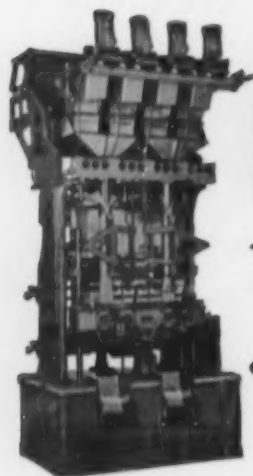
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new equipment is said to be adapted also for the packing of a wide variety of large articles, such as television sets, stoves, room air-conditioners, dishwashers, filing cabinets, furniture, hot water heaters and the like.

Credits: Corrugated cartons and closing equipment by Hinde & Dauch, subsidiary, West Virginia Pulp & Paper Co., Sandusky, Ohio.

Pull-tab cereals

[Continued from page 93]

from being weakened and created a device that could be made integral to any ordinary carton. He made models which worked perfectly. The series of diagonal perforations kept the tear strip in the "track" and were stronger than straight-line perforations. The General Mills Research Machine Shop made a contribution by designing the first diagonal perforating tool. A local carton supplier gave a helping hand in providing the many carton variations required in the experimental phases of the tear-strip development.

A package machinery supplier designed the equipment to handle the easy-opening carton for Answer Cake.

Grapp specified polka-dot spot gluing of the flaps for even more efficient functioning of the tear strip.

The new carton was subjected to a series of rigid compression, tumbling, drop and actual shipping tests, as well as machine tests, to make certain it would run at high speeds on existing equipment.

The final test, however, was the rapid acceptance by consumers, who were quick to appreciate a new-found freedom from broken fingernails and frayed tempers. And besides the convenience of easy opening, the cartons offer another advantage—no more hunting and digging for coupons. Coupons are now printed right on the strip so they may be torn off the moment the package is opened. And, says General Mills, the coupon saver is a repeat purchaser.

Credits: Carton variations required in experimental phases by Waldorf Paper Products Co., 2250 Wabash Ave., St. Paul 6, Minn. Machinery to handle easy-opening carton by Bartelt Engineering Co., 1900 Harrison Ave., Rockford, Ill.



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The cigarette box

[Continued from page 97]

due to box size and shape, and interior arrangement.

Marlboro wanted a package which would closely conform to the size and shape of the conventional cigarette package to which Americans are accustomed.

Encore adopted the flatter, wider, continental style of box, similar to what had originally been produced with this machine in Germany, Holland and South Africa.

The Encore flip-top box contains twin foil-wrapped packs of 10 cigarettes each, placed side by side. Each of the twin units is similar to those found in familiar slide-and-shell packages traditional for cigarettes in England.

Another difference is the construction of the inner-frame board in the Encore package, which has a double-scored fold in the middle, making a separate compartment in the box for each of the packs of 10. The advantage, according to the company, is protection. As the cigarettes are used they do not jostle around in the box.

Like other fractional packs, one twin need not be opened until the other is used up.

Encore also uses embossed foil, paper faced, applied in the machine in two pieces—a long one which goes around the cigarettes and a short one in front, marked "Pull," which pulls out as a convenient tab, which is located in the front of each twin pack.

Encore packaging line

The Encore box-forming equipment is the same in principle as the Marlboro flip-top box. The difference is in the method of travel of the cigarettes from the hopper on two tracks which form the twin inner packs.

As the finished Encore cigarettes drop into the hopper channels they are maintained in layers of five cigarettes each. At the completion of their downward course, the two bottom layers of five each, in each of the channels, are pushed into two enclosed tracks by 10 mechanical fingers.

Two rolls of foil, one on a spindle for each track, are fed between twin embossing rollers—one chrome steel, the other acrylic plastic—which em-

boss the background pattern and the word "pull." On each track, the embossed foil is cut into two pieces to meet each 10 on-coming cigarettes in each track. The cigarettes are pushed into the foil, the mechanical operation takes place and the bundle is completed with the word "pull" properly positioned on the top piece of foil. The simultaneously made twin bundles enter a transfer section that places them side by side prior to their meeting the inner frames which act as separators as well as impart the flip-top hinge action to the box lid.

The rest of the operation is similar to that of the machines used for Marlboro. The inner frame is crimped, formed and transferred by tracks to a point where the twin foil bundles are slid into place under the frames.

The pre-cut and partially formed blanks receive the twin bundles around which the boxes are formed.

After passing the glue strip, the boxes enter a 48-station dryer drum where they are held for 24 seconds at 150 to 170 deg. F. of dry heat, sufficient to set the glue.

Costs

Present costs of these machines reportedly run well into five figures and vary in accordance with the types of attachments that are required.

As has been previously stated, there is a backlog of orders from the cigarette industry that prevents immediate expansion into other types of industries.

However, for products which are gradually consumed and can use a rigid box with convenient opening and reclosure, this principle is something worth watching.

Credits: Hinge-lid packers by Molins Machine Co., London, England, and 1716 Summit Ave., Richmond, Va. Box blanks for original Marlboro development printed and produced by U. S. Printing & Lithograph Co., 340 Beech St., Cincinnati 12, Ohio. Foil for original Marlboro development by Reynolds Metals Co., 2500 S. Third St., Louisville 1, Ky. Marlboro box surface design by Frank Gianinnoto & Associates, 133 E. 54 St., New York 22. Encore box blanks by The Lord Baltimore Press, Inc., 1601 Edison Hwy., Baltimore 13, Md., and foil by Reynolds Metals Co.

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Plastics for drugs

Speaking before the recent meeting in New York of the American Pharmaceutical Mfrs. Assn., Peter J. Murphy, district sales manager of Millsplastic Div., Continental Can Co., listed ways in which new developments in plastic packaging can be used by manufacturers of pharmaceutical products.

Among the newer package types which should be of most interest to this industry, he said, are: formed plastic containers, which offer an economical skin-type covering for pharmaceutical displays and a convenient means of packaging drug samples; the new low-pressure polyethylenes, which, when in full production, will permit the molding of thinner-gauge, cheaper plastic bottles and vials; plastic tubes, which now can benefit by the use of improved end-sealing equipment and conventional tube-filling machinery; and new developments in plastic screw closures.

Mr. Murphy pointed to the polyethylene bottle as a plastic container which has had great use by the pharmaceutical industry since its introduction in 1947. Total shipments during 1955, he estimated, amounted to from 260 to 275 million units. He described the ways in which plastic bottle suppliers are solving the problems still remaining, such as permeation of contents, neck cracking and collapse of walls.

Difficulties formerly encountered in labeling, he said, are being reduced by the use of surface pre-treating, hot-die stamping, wrap-around labels and other techniques. One of the greatest industry needs, said Mr. Murphy, is for greater standardization of bottle weights, designs and threads.

Scholarship set up

Michigan State University has announced the foundation of its first undergraduate scholarship in packaging technology. To take the form of an award of \$500 going to a senior in the University's packaging curriculum, the scholarship was set up by Stone Container Corp., Chicago.

First winner of the new aid to packaging education is John E. O'Hara of Niagara Falls, N. Y.

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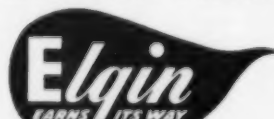
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Paints

[Continued from page 108]

similar items are concerned. The packager of these and similar items can well look to the trends now going on in the hardware field for profitable packaging ideas. A paint scraper stapled to a card and hung on a hanger display has converted this product of the Hyde Mfg. Co. into a fast-moving self-service item. Carded merchandise should offer increasing merchandising opportunities in the paint-accessory field. It seems logical, too, that the packaging of accessory sets and painting kits will be developed more extensively than they have been to date.

The packager of paint supplies will want to keep his eyes on the techniques and application of vacuum- or pressure-formed sheet plastics. Formed sheet packages have already taken a strong grip on the hardware field. Formed plastic sheet is important to the packager because it offers visibility, protection, novelty and economy. Moreover, it is a field where new developments are occurring at an accelerated rate.

Packaging lines

The packaging of paints is a fairly well standardized operation. In general, automatic equipment is employed, except that the bails are put on by hand. Piston-type fillers are used because paint is of a heavy, semi-liquid consistency. Quarts are packaged at a rate of 25 to 40 units a minute; gallons at a speed of 12 to 20 cans a minute and higher.

Mostly, the cans are labeled with a paper wrap-around label. In general, labels are printed from a master plate. Color and type are designated with a separate imprint. Color coding is conspicuous by its absence—except that one enterprising packager of aerosol paints is color coding his spray packages with metal caps, each cap the identical color of the spray within the container. The caps not only serve as color chips, but each assorted display automatically becomes a color chart.

The packaging of paint has its complex aspects because so many different sizes of cans are filled. A great many different types and colors of paint are packaged and the consumption of paint is seasonal. Batch operation, accordingly, is the

dominant technique employed in production scheduling.

An important step in the opposite direction from batch handling and movement of packages by hand truck has been pioneered by the Foy Paint Co., Cincinnati. The Foy installation consists of seven 700-gal. mixing tanks surrounded by a conveyor system. The mixing tanks and conveyor lines are linked by portable filling units. Thus any one of the seven mixing tanks can be served by any one of three conveyor lines. Cans are fed into the line by hand, but the filling, labeling and packing into shipping cases is automatic.

The cases are sealed in a case sealer and a case marker automatically imprints the brand name and product designation on the opposite ends of the shipping case. At this point the conveyors from the different filling lines merge onto a master conveyor to shipping and storage.

Five operators now man the entire packaging department and output is

increased 50 to 75%. Side-opening cases, made possible by the adoption of the automatic case packer, permit an economy in container cost. But perhaps most important of all, production scheduling is put on a more efficient basis. Gallons and quarts are scheduled during the rush season; pints and half-pints are supplied from stock that is packaged during the winter months. In this way production is spaced out to help eliminate peaks and valleys. Production capacity is reserved for the volume sizes at the time when production is needed most. Sudden spurts in demand can now be met by the new line because of its greater capacity and efficiency.

Tomorrow's paints—new types, improved types and greater variety—will certainly present new challenges to packaging. And packaging—to sell paints more efficiently and for easier use—may be the greatest challenge as well as the biggest opportunity that will be encountered by the paint industry.

Polyester film pouches

[Continued from page 92]

series) are packed in lots of 100 each. And for large industrial users, quantities of 1,000 very small washers in four sizes are packaged.

Odd-lot custom packs are also possible for special purposes, such as a set of, say, 67 washers to go into the assembly of a particular machine.

To package this range of sizes a considerable amount of machine versatility is needed, since change-overs must be made every day or two. A standard-model automatic packaging machine, equipped with a set of four net-weight scales, was chosen to do the job.

Washers packaged on the machine are fed into a hopper which feeds down from the floor above. From the hopper they are fed by a vibrating device into weighing buckets. This bulk fill is followed by a dribble fill to get the desired weight. There are four of these buckets on the machine, each connected to an individual scale. They operate in pairs: as two are weighing, the other two are dumping weighed loads into the two wrapping sections of the duplex machine. Using this weight-measur-

ing system, a load of washers can be portioned out that is accurate to within one or two units, says the company. But if any load is too light, it will not drop down the filling chute.

Save for the unusual fold-over seam mentioned previously and an automatic roll-leaf coding attachment which imprints each bag, the remainder of the package-forming operation is standard. The roll-fed web of film is sealed into a tube and filled with a measured load of washers, the ends are sealed and individual packages sliced off. The finished Uni Paks are then loaded into large shipping kegs for delivery to industrial users, or into 10-pack fibre cartons for resale outlets. At present, the machine is turning out the bags, two at a time, at a 30-per-minute rate.

It is still too early to know the ultimate effect of this packaging development on the spring-lock washer industry. It has been called the "first real packaging change in the industry in 25 years." But Philadelphia Steel & Wire is very pleased with the results during its first weeks on the

Seals • Labels • Tags

by

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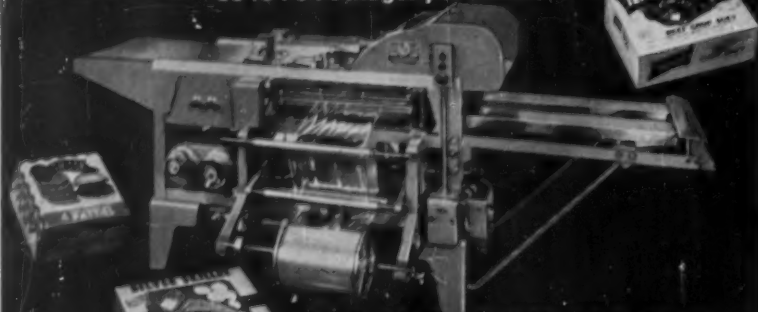
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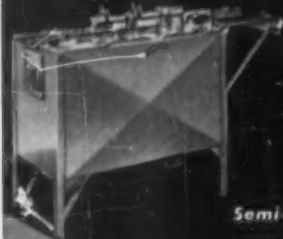
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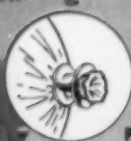
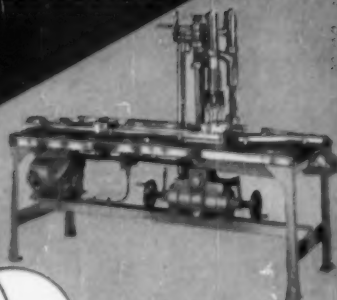


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market. For many spring-lock washer users the Uni Pak (a registered trademark name) is an unusual, convenient package—one made possible only by the latest development in transparent plastic.

Credits: "Durafilm 100 M-30 P" supplied by The Dobeckmun Co., P. O. Box 6417, Cleveland 1, Ohio, using "Mylar" film by Du Pont. "Stokeswrap BS" packaging machine by Stokes & Smith Co., subsidiary Food Machinery & Chemical Corp., 4900 Summerdale Ave., Philadelphia 24, Pa., using net-weight scales by The Woodman Co., Decatur, Ga. Imprinter by Industrial Marking Equipment Co., 454 Baltic St., Brooklyn 17. Metal-edge cartons by National Metal Edge Box Co., Callow Hill & 12 Sts., Philadelphia 23. Fibre shipping cartons by David Weber Co., 3500 Richmond St., Philadelphia 34.

Super-styled medicines

[Continued from page 121]

larger containers in which six strips of six are packed. The large-size Bromo Quinine carton also includes six strips of six, but the smaller size holds four strips of four.

A special point-of-purchase display carton has been introduced for the two tablet brands, holding two dozen 4 Way packages and one dozen Bromo Quinine. Copy plays up the new cellophane unit packs, which Grove calls its "New Health Guard Cello-Strip Packages." Although present distribution is limited, the company reports that it expects to back up its trail-blazing advance into supermarket drug packaging with "The biggest ad campaign ever accorded a Grove product."

Credits: Strip-packaging machines by The De Florez Co., 116 E. 30 St., New York 16, using cellophane by E. I. du Pont de Nemours & Co., Wilmington 98, Del. Folding cartons by F. N. Burt Co., 500 Seneca St., Buffalo 4, N. Y. Cartoners by R. A. Jones & Co., P. O. Box 2055, Cincinnati 1, Ohio.

Tinless food can

An entirely tinless food can made its debut at the recent annual convention of the Pennsylvania Canners Assn. in Harrisburg, Pa. Featuring an aluminum coating instead of tin and side seams that are welded instead of soldered, it is described as "the latest in tin-free containers."

The welded seams are said to pro-

vide a stronger closure than that of conventional soldered cans and the aluminum coating on both bodies and ends reportedly provides a durable and attractive finish that gives better protection than tin.

Credit: Cans by American Can Co., 100 Park Ave., New York 17.

New use for labels

Wynn Oil Co., Azusa, Calif., has found a novel way to keep score on a sales promotion for its Friction Proofing. Each can of the oil additive sold to dealers during the campaign bore a tiny pressure-sensitive label, which filling-station attendants were instructed to remove and re-apply to a "pay card" whenever they sold a can of the product. At the end of a 30-day period, the firm's salesmen called on the dealers and repaid them 15 cents for each label.

Credit: Labels by Avery Adhesive Label Corp., Monrovia, Calif.

Cellophane

[Continued from page 143]

Specific products packaged in OX-500 and OX-511 include those shown in Table VIII.

Many products do not require the premium protection afforded by OX films. These products should continue to be wrapped in standard nitrocellulose-coated cellophanes.

Summary

A new packaging film, 300 OX-511, is available, but in limited quantities for some months to come. Several additional members of the family are under development so that there can be an OX film for other packaging conditions.

OX-511 is being used successfully where high water-vapor protection and grease resistance are necessary in a packaging film and the greatest single application to date has been in the bakery field. Converting and packaging machine operation is excellent and package appearance is excellent due to the inherent dimensional stability.

References

1. Saran Coated Cellophane, MODERN PACKAGING 27, No. 8, 80-83, 176 (April, 1954).
2. Landrock, A. H., and Proctor, B. E., Tappi 35, No. 6, 241-6 (June, 1952).



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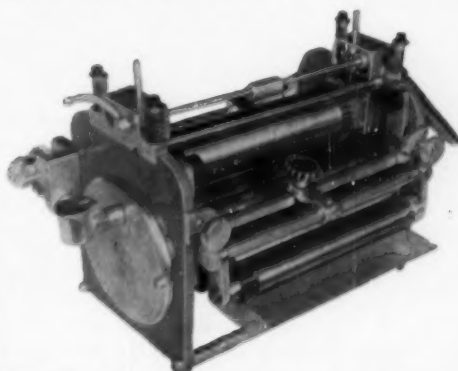
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Announcement

The March issue of *Modern Packaging* will be the annual Show* number. It will give packaging suppliers the largest audience in twenty-nine years. It will give advertisers more value than any other single issue in '56. Advertising deadline is February 5th. For rates and other details write Advertising Department, *Modern Packaging*, 575 Madison Avenue, New York 22, N. Y.

*25th National Packaging Exposition of the American Management Association

Miniature squeeze tube

[Continued from page 101]

container mouth so that flow will be more gentle when content is expelled. The use of the cotton cap greatly facilitates this action, since it sponges up the liquid so that it cannot be released in one squirt.

To acquaint women with its Adam's Rib fragrance, Lenthier was looking for a method of sampling that would be low cost to both company and retailers. In the saran unit package, the company has found a method which, according to Jack Mohr, general manager, looks like the answer to the sampling of a number of cosmetic products.

The Adam's Rib sample consists of two tiny containers of perfume placed in a printed paperboard folding carton of special construction, providing the kind of attractive presentation unit desired in the perfumery trade. The carton carries promotional copy for the fragrance, has a place for store name and address and tells how to dispense the perfume on the bottom of the container.

Members of The Fragrance Foundation see many possibilities for this type of container as a sampler to make women more aware of perfume fragrance, similar to the promotion conducted by *Harper's Bazaar* a few years ago.¹

¹ See "Minuscule Samples," *MODERN PACKAGING*, Jan., 1951, p. 80.

Anti-oxidant food board

[Continued from page 119]

since it will not stop grease penetration and unsightly staining of the package, the board usually—as in the case of the Lenell trays—is given a so-called "greaseproof" surfacing as well. The surface stops the staining; the chemical in the paperboard itself stops the rancidity action, which can develop just as readily in coated board through grease wicking in through the cut edges of the carton or tray.

Although Maurice Lenell was not having any unusual difficulty with rancidity, company officials did not wish to overlook any practical step which could provide additional insurance against rancidity that might show up in packages which were not properly rotated in accordance with the date code or were left on store shelves too long for one reason or

The new containers are reported to be comparatively low cost in quantity, depending upon size, printing, label strips, etc., and whether the cotton-tip applicator is desired.

Endless variety may be achieved for presentation of individual units. Singly they may be printed or embossed with product and trade identification directly on the saran itself. Or they may be attached in groups to printed pressure-sensitive label strips. These, in turn, may be placed in colorfully printed cartons and folders, picture-frame boxes or transparent plastic hinge boxes, such as Martin Senour Paints uses for single-application units of its silicone oil—one of the first examples of a sales package using this type container.

The silicone oil requires rigid quality control. Martin Senour formerly used glass bottles with expensive calibrated droppers. The saran unit package, containing an accurately pre-measured quantity, reportedly, has reduced packaging costs substantially, plus offering the consumer a new convenient means of exact application without waste.

Credit: "Unette" dispensers and "Touchette" applicators developed and filled on a contract basis by Unette Corp., Inc., 280 Madison Ave., New York.

another. The extensive distribution of Maurice Lenell cookies, embracing approximately 30 states, made this particularly important.

Previously, the Lenell overwrapped cookie trays, of the four-corner locking style, were made of high-quality "greaseproof" glassine-wax laminated paperboard. Although this board provided good product protection under normal circumstances, a problem was created when the packages were stood on edge in the retail display, as is frequently the case. In this position some of the cookies or crumbs, would gravitate to the bottom of the package and might come into contact with the raw, die-cut edge of the tray blank, through which oils or fats could bleed or wick into the board.

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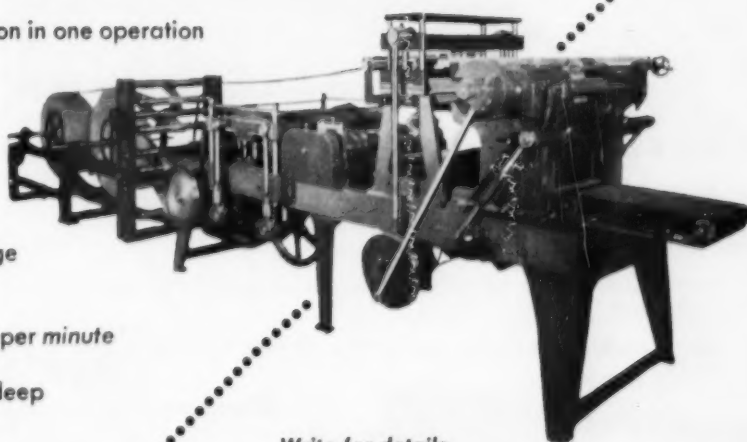
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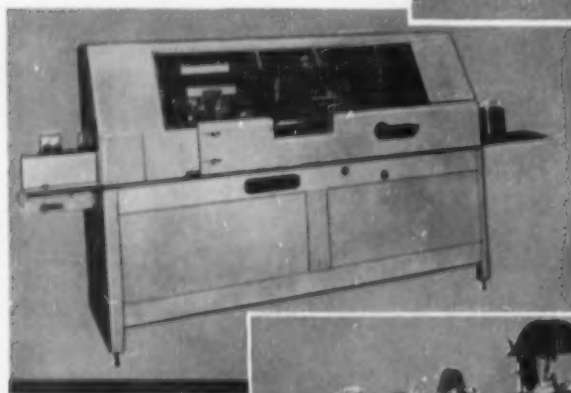
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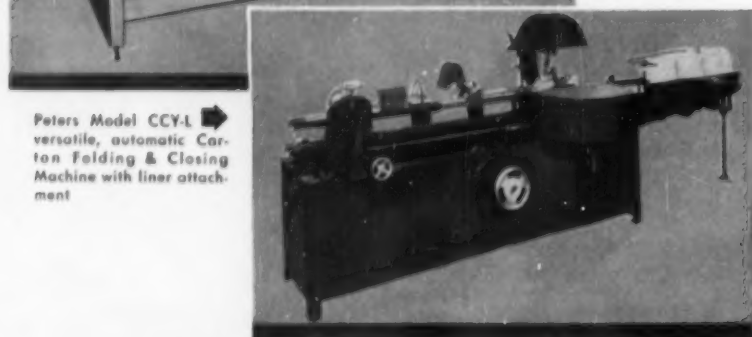
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bilized board, the Lenell company conducted a series of taste tests in its own plant. Several dozen sample packs of cookies, put up in trays made from both treated and untreated board and wrapped in the conventional cellophane wrapper, were submitted to weekly taste tests by a group of Lenell representatives. Simultaneously, the carton supplier ran a series of laboratory tests on the Lenell cookies in both types of packages, through which rancidity development was measured on a scientific basis. In these tests, various fats and oils, as well as the actual Lenell cookies, were placed in contact with the two types of boxboard. At the end of these tests, a very close correlation was apparent between the two lines of investigation, both of which strongly demonstrated the ability of the stabilized board to inhibit development of rancidity.

Except for the invisible chemical contained in the board, the Lenell trays are exactly the same as before. They are made of double white-lined, solid manila, glassine-wax laminated board. No modification was made in design or color treatment.

There is no change in Lenell's packaging procedure. Cookies are placed by hand in the trays, which are set up by an automatic machine and fed on a conveyor belt. Unusual in the Lenell set-up is the fact that the carton set-up machine is driven by the cellophane wrapping machine at the opposite end of the line, insuring perfect synchronization. Unprinted, heat-sealing, moistureproof cellophane is used; the wrapping machine automatically applies a thermoplastic top label and prints a code date on the cellophane.

Lenell's reason for adopting the stabilized board trays points up a problem shared by many manufacturers of high-quality food products: the fact that they may have little or no control over the conditions affecting the quality and storage life of their products once they have been delivered to the retail outlet. This emphasizes the importance of building in package features which will guard product quality even in the face of unfavorable handling and long shelf storage prior to sale.

Credits: "Stabilized board" trays by Robert Gair Co., Inc., 155 E. 44 St., New York 17, using "Ionol-CP" inhibitor supplied by Shell Chemical Corp., 50 W. 50 St., New York 20.

Flexible film figures

Manufacturers' market shipments of converted flexible packaging products during July, 1955, amounted to more than \$26 million, according to a preliminary report issued by the Bureau of the Census, U. S. Department of Commerce. These figures represent the second in a projected monthly series of production reports to be compiled with the assistance of the National Flexible Packaging Assn.

All flexible materials are included in these totals, with the exception of stock paper bags; multiwall sacks; bags, pouches, etc., made from foil and foil laminations (except foil-polyethylene); bread wrappers and carton overwraps from unlaminated and waxed papers; labels; sausage casings; and all contract packaging and "captive" operations.

Shipments of converted flexible packaging products, July, 1955
(in thousands of dollars)

Bags, envelopes, pouches, liners, tubes, etc.:	\$13,439
Cellophane (unsupported)	2,790
Polyethylene (unsupported)	3,050
Polyethylene in combination with paper, film, foil	986
Kraft or sulfite paper, single or in combination with other paper or films (except polyethylene); other unsupported films	4,262
Glassine, greaseproof, parchment, waxed papers	2,351
Printed rolls and sheets:	6,248
Cellophane	4,530
Paper, all types	1,519
All other materials, including foil	199
Laminated or coated rolls and sheets	4,786
Retail household bags	494
Military specifications	1,186
Total shipments	26,153

Gravure meeting

The Gravure Technical Assn., Inc., will hold its annual meeting on Feb. 1-3 at the Hotel Biltmore, New York. The convention is designed to bring together association members from all branches of the packaging and publishing fields to discuss common problems and special phases of gravure printing. Eight separate technical sessions, aimed at providing coverage of all the industry's major fields, have been scheduled.

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*1955 survey
knowledge
of aerosols*

ROOM-DEODORANT PREFERENCES. Aerosol room deodorants are preferred 4 to 1 by survey families. Figures show preferences in percentages of survey families who used an aerosol room deodorant and one or more other types. The two leading methods are shown.

Aerosol	71%
Next leading type	17%

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you rate and improve acceptance of your aerosol product. Here's information that shows the growth of aerosol popularity.

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HAIR-SPRAY PREFERENCES. Over 2 out of 3 survey families prefer hair-set aerosols. Figures show preferences in percentages of survey families who used an aerosol hair set and one or more other types. The two leading methods are shown.

Aerosol	68%
Next leading type	11%



HAIR-DRESSING PREFERENCES. Survey families prefer aerosol hair dressings almost 2½ to 1. Figures show preferences in percentages of survey families who used an aerosol hair dressing and one or more other types. The two leading methods are shown.

Aerosol	46%
Next leading type	19%

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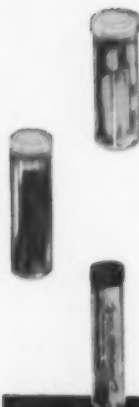
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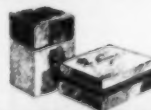
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Best aerosol packages

Ten aerosol containers were judged best in their product classifications in the recent 1955 Aerosol Packaging Contest, sponsored by the Chemical Specialties Mfrs. Assn. The



winning designs were selected from 150 packages entered in the competition.

The Grand Award was won by a floral insecticide with a quick-identification label featuring a full-color reproduction of a rose in full bloom. This product, "Cross Country Rose and Floral Spray" by Sears, Roebuck & Co., was also judged best in the Insecticide classification. In the picture above, it is in the center foreground.

Other winners (see photo) were:

Top row (left to right): "Christmas Snow," Aerosol Co., Inc., (Artificial Snow); "Rust Veto Spray," E. F. Houghton & Co. (Industrial Products); "Ambush" spray cologne, Dana Perfumes, Inc. (Glass and Plastic Containers).

Middle row: "Fire Chief" fire extinguisher, Marlow Chemical Co., (Miscellaneous Household Products); "Palmolive Rapid-Shave," Colgate-Palmolive Co., (Shave Products); "Blue Grass" hair spray, Elizabeth Arden Sales Corp. (Hair Preparations); "Xpose" suntan cream lotion, Walgreen Drug Stores (Miscellaneous Personal Products).

Bottom row: "Jetco Spring Blossom" air freshener, Jewel Tea Co., (Room Deodorants); "Dupli-Color" spray enamel, Dupli-Color Products Co., (Paint Products).

Award plaques were presented to the winners by Fred G. Lobes, chairman of the CSMA Aerosol Awards Committee, and all the packages entered in the fourth annual competition were shown at an Aerosol Festival display, held recently at the Hotel Roosevelt, New York.



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Glass at peak

Shipments of glass containers reached an all-time high during 1955 and an additional 5% gain during the first nine months of this year can be predicted, according to C. C. Merrifield, vice president of The Econometric Institute, an independent economic consulting organization. Speaking before the recent membership meeting of the Glass Container Mfrs. Institute in Miami, Fla., Mr. Merrifield estimated that glass container shipments last year added up to almost 20 billion units, or approximately 114 per capita. This represents an increase of 7% over shipments during 1954.

All major grades of containers showed gains, he said, with those designed for food products being especially notable. Baby foods, for instance "continue to show exceptionally strong growth."

For 1956, Mr. Merrifield forecast "new record levels of shipments of glass containers to the food, medicinal and health, household and chemical, and toiletries and cosmetics industries." The only product which appears likely to show some loss of its relative market position is glass containers for beer.

"Income, employment, population growth and other economic factors are likely," he said, "to be favorable to the continuation of the excellent gains in glass container shipments evident through 1955."

Cushion sorption

[Continued from page 146]

circles, around the lip of the beaker, and held in place with an elastic band.

The assembly is shown in Fig. 1. The entire assembly was then weighed to obtain the weight of the cushioning material. The complete assembly was placed in a General Foods Humidity Cabinet at 100 deg. F. \pm 2 deg. F. and 90 to 95% relative humidity for 24 hrs., removed, cooled in a desiccator, disassembled and the silica gel and cushioning material weighed separately. The materials were re-assembled and this process (e.g., exposure for 24 hrs., disassembly, weighing and re-assembly) repeated until the weight increase of each component became simultaneously constant to the nearest 0.1 gram. The per cent water

sorbed for each component (e.g., silica gel and cushioning material) was calculated as follows:

$$\text{Water sorbed, \%} = \frac{A - B}{C} \times 100$$

where

A is the cumulative weight at end of exposure period and

B is the initial weight.

This procedure was performed in duplicate for each cushioning material. The results are shown in Table II.

To derive the results shown in Table III, the above procedure was repeated except that the silica gel was omitted from the assembly.

Conclusions

1. The amount of water vapor sorbed by cellulosic cushioning materials is negligible in the absence of the vapor pressure differential produced by a desiccant.

2. The amount of water vapor sorption by cellulosic cushioning materials, both with and without a desiccant, is not influenced by the type of cushioning material used.

3. When a desiccant is being used to test the efficiency of the pack and a silica gel desiccant-cellulosic cushioning material system is set up so that water vapor must pass through the cushioning material to reach the desiccant, sufficient water vapor can be sorbed by the cushioning material (approximately 20% by weight of the total system) so that the increase in weight of the silica gel will not give a true measure of the amount of water vapor that has entered the package.

Recommendations

It is recommended that test procedures involving evaluation of packages by means of weight gain of a desiccant be carefully delineated so that the desiccant will have free access to water vapor entering the package without the necessity of the water vapor passing through cellulosic cushioning material to reach the desiccant. If such precautions cannot be taken, it is recommended that the cushioning material be weighed in addition to the usual weighing of the desiccant so that the total amount of water vapor entering the package may be determined.

References

1. Military Spec. MIL-P-116B; Preservation, Methods of, Paragraph 3.5.7.
2. Technical Manual TM 38-230; Preservation, Packaging, and Packing of Military Supplies and Equipment, Paragraphs 2-39 to 2-50.
3. Federal Spec. UU-C-843; Cushioning Materials, Cellulosic.

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Announcement

The March issue of Modern Packaging will be the annual Show* number. It will give packaging suppliers the largest audience in twenty-nine years. It will give advertisers more value than any other single issue in '56. Advertising deadline is February 5th. For advertising rates and other details write Advertising Department, Modern Packaging, 575 Madison Avenue, New York 22, N. Y.

*25th National Packaging Exposition of the
American Management Association



Here's what Tussy demands in a plastic closure: uniform size and color throughout million plus runs—perfect threads that function without binding or wedging—precise, flash-free detail—and a competitive price. That's why Tussy specifies plastic closures by Scott!

Standard . . . custom . . . specially engineered plastic closures in any size, shade, quantity—with any type of liner—can be produced to rigid size and delivery specifications by Scott. Investigate Scott's facilities—it may be the thrifty thing to do.



410 Windsor Street • Hartford, Connecticut

Double vacuum pack

[Continued from page 125]

label is used on the outer carton.

Coincident with the introduction of the new packages, which appeared in Western markets in September and are due in the Midwest and East later, Poletti-Golden Gate has designed an efficient and smoothly operating packaging room on the second floor of the Poletti plant.

Inside this small room, measuring only 18 by 14 ft., are nine pieces of equipment and stations for about eight or 10 girls.

An 8-ft. stainless-steel table has been placed against one wall of the room and on this table are stacked the unsliced meat loaves. The automatic slicer and counter is against the second wall, at a right angle, and an operator stands at this point, taking the loaves and inserting them in the slicer.

Two girls stand at either side of the slicer, receiving the stacks of sliced meat and weighing them. From here the slices pass to other operators who insert the meat in the polyethylene-cellophane envelopes and stack them on another stainless-steel table against the third wall.

A step from this table are a pair of vacuum-sealing machines, placed at an angle of 45 deg. to each other. The machines, each of which handles four packages at a time in four separate vacuumizing heads, are used in pairs so that a single operator may be loading one while the other is completing its vacuumizing and sealing cycle, which takes from six to 10 seconds.

Simultaneously pressing two buttons located at opposite sides is necessary to close the hinged top of the machine and start its operation, after packages are placed by hand in the base receptacles, so that it is impossible for the operator accidentally to start the machine while her hand is in the chamber.

As the machine opens at the end of the cycle, the operator with a single sweep of her hand can remove the sealed packages to a gravity chute which takes them down about 6 ft. to the cartoning station. At this point the pressure-sensitive labels are adhered, the pouches inserted two to a carton and the process completed.

Sales Manager Bernard Zipp, who is now setting up the sales program

in the Midwest and East, is also preparing a promotion program for the Pic-A-Snak E-Z Paks, to start during the late fall and winter.

Credits: Pouches and cartons by Milprint, Inc., 4200 N. Holton St., Milwaukee 1. "Vac-U-Pak" machines by J. A. Jenks Co., 224 Commercial St., San Francisco 11. Pressure-sensitive labels by Eastman Tag & Label Co., 548 Fourth St., San Francisco.

Mechanizing aerosol

[Continued from page 113]

still another girl, who tests each button for proper adjustment.

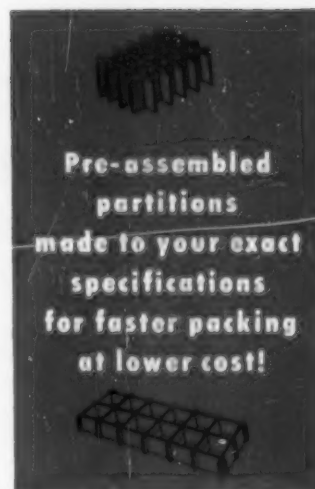
Lastly, a roving member of Mennen's quality-control staff makes a periodic spot check of the line's operation. Taking a sample batch of cans at random, he checks them thoroughly for weight, gas content, possible leaks, etc., and records all the details for statistical analysis.

If imperfect cans are discovered at any point along the line, they are immediately removed and, if possible, the contents salvaged for reprocessing.

These are significant strides towards almost completely automatic aerosol packaging. The only remaining hand operations—inserting the valve assemblies and loading finished cans into cartons (steps 4 and 11 above)—can be mechanized whenever the time seems ripe. With the installation of its ingenious new machines and current speed-up to 120 cans per minute, Mennen is doing everything it can to turn out an aerosol package quickly, efficiently and economically.

Credits: Special capping machines for applying disks and buttons by Pneumatic Scale Corp., Ltd., Quincy, Mass. Cans and can-sealing equipment by American Can Co., 100 Park Ave., New York 17. Polyethylene adapter disks and polystyrene push buttons by Gibson Associates, Berkeley Heights, N. J. "Freon" propellant by E. I. du Pont de Nemours & Co., Wilmington 98, Del.; "Genetron" propellant by General Chemical Div., Allied Chemical & Dye Corp., 40 Rector St., New York 6. Code-dating machine by American Marking Corp., 77 Lock St., Newark 4, N. J. Filling machine by Elgin Mfg. Co., Elgin, Ill. Aerosol pressure-loading machines and valve-and-tube assemblies by Oil Equipment Laboratories, Elizabeth, N. J. Turntables, unscramblers and special conveyors by Island Equipment Corp., 27-01 Bridge Plaza N., Long Island City 1, N. Y.

Partitions for protective packaging



WRITE, PHONE or WIRE
for QUOTATIONS on
YOUR REQUIREMENTS

peter partition corp.

Manufacturers of Cardboard Partitions

19-21 HEYWARD ST. Telephone: TRIangle 5-4033 BROOKLYN 11, N. Y.

UNUSUAL CAREER IN SALES APPLICATION RESEARCH

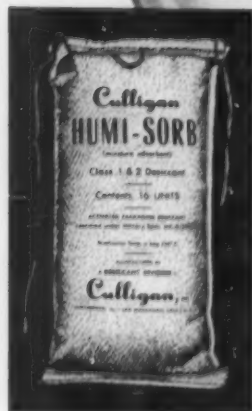
Large progressive eastern chemical company has openings for two graduates under 35 with technical degrees for applications research on transparent flexible films. Will also consider younger men who are interested in growing in this most interesting field.

Experience in laminating is desirable but not essential.

Duties will include study of applications of all types flexible films in customers' and potential customers' products and processes. Both laboratory investigations and cooperative technical work with customers are involved. Replies held confidential. Please send complete resume including salary expected and details of education and experience. Our employees know of this ad.

Reply Box 259, Modern Packaging

WHEN MOISTURE IS HARMFUL...



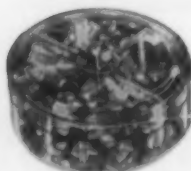
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Confections

...protect your products with **Culligan HUMI-SORB**

THE DESICCANT SPECIFIED FOR MILLIONS OF PACKAGES REQUIRING DEHYDRATION

Backed by years of research, engineering and production experience, HUMI-SORB is specified by more than 2000 organizations requiring moisture-free packaging. This dependable moisture adsorbent provides protection for many classifications of packaged products susceptible to damage from high humidity. Among these are:

- ELECTRONICS EQUIPMENT • ELECTRO-MECHANICAL EQUIPMENT • AIRCRAFT COMPONENTS • POWDERED METALS • GUIDED MISSILES • INSTRUMENTS • FOODS • PHARMACEUTICALS • FLOWER AND VEGETABLE SEEDS • HARD CANDY

Culligan Humi-Sorb meets Military Specification MIL-D-3464A, Classes 1 & 2.

Humi-Sorb is available in all standard unit bag sizes, in bulk, or custom packaged to fit your specific needs.

- Representatives in principal cities in U.S. and Canada.
- Two convenient shipping points: Northbrook, Illinois (suburb of Chicago); San Bernardino, California.

DESICCANT
DIVISION

Home Office:

Culligan INC.

Northbrook, Illinois

Full steam ahead!

[Continued from page 89]

tion at retail, with the "convenience" avenues that packaging makes available, could be one of the long-awaited links in meat merchandising (Dec., p. 88).

In practically every field, top management interest will be centered on package sizes. Questions of the moment are the large-sized bottle for soft drinks and the quart can and other large sizes for beer.

The Esso Standard Oil Co. is conducting its second round of marketing tests for aluminum oil cans. The first tests showed satisfactory performance and savings resulting from reduced shipping weights. The aluminum can has some big hurdles to leap before it can break into oil packaging on a regular basis.

Packagers who are using glass are also watching the strategy that is being evolved for large-sized containers. Also, the liquor gift-decanter boom, if anything, is even stronger this year. The silicone treatment of glass to provide a smoother strength-protective surface is considered one of the very important recent developments in the glass container field. The development of lighter-weight, stronger glass containers must also be carefully watched as part of the glass container's move to strengthen its position as the most economical container for certain packaging jobs.

The demand for 'high-gloss' surfaces in paper and board stocks stems directly from the increasing interest in the strategic uses of the package. Paper and board stocks have always been the most printable of all materials used in packaging. This is a factor that cannot be overlooked as plastics heighten their challenge to the conventional packaging materials. Illustration and printed messages are more important in today's self-selling techniques than ever before. A good example of label effectiveness stemming from improved label stock is the new label designed for Jewel salad oil and for Swift's. The labels utilize a new type of paper stock having exceptional brilliance and requiring no lacquer coating (Feb., p. 120). An effective use of an improved board is found in the smart packaging Cannon Mills achieves with its new high-gloss cartons (Oct., p. 106).

More than ever before, packaging

production is being thought of in terms of an integrated over-all installation. Even where individual units of equipment grab the spotlight, it is generally because they close the gap in total mechanization of the packaging operation.

The forward march of packaging equipment toward automation has been exemplified by such noteworthy installation as:

- ▶ Push-button beer packaging lines at Anheuser-Busch (March, p. 48).
- ▶ The first 1,000-per-minute packaging line, installed by Heinz for packaging canned baby foods (April, p. 140).
- ▶ Northam Warren's 120-per-minute squeeze-bottle line (May, p. 84).
- ▶ Mennen's 120-per-minute pressure-filling aerosol line (Jan., p. 109).
- ▶ Mobiloil's 600-per-minute line for canned oil, featuring a new unscrambler, filler, conveyors and auxiliary devices (July, p. 111).

Some of the individual units that have helped break production bottlenecks in lines that were otherwise ready for high-speed output include:

- ▶ A new case loader adopted by DuPont for packaging gallon cans of Zerex in end-opening, cost-saving shipping cartons (Aug., p. 78).
- ▶ A new automatic case packer that permits mechanical loading of bulging frozen-food packages (Oct., p. 120).
- ▶ The conversion of standard machines to do many specialized jobs. For example, in one instance a labeler is used as a filler and in another instance a labeler is used to lock vacuum-formed plastic blisters to a merchandise card, thus mechanizing a job that formerly involved hand methods and expensive materials (March, p. 108, and June, p. 104).

An event only remotely related to packaging production, but one that cannot possibly be overlooked in any review of the significant news in packaging was the first commencement at Michigan State University for students graduating with a degree in packaging (May, p. 96). Certainly the training of qualified personnel to handle the complex problems of packaging has become one of the most compelling needs in the entire field of producing, processing, marketing and merchandising retail packaged goods.

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- Delivers a well settled, nicely squared bag at top, bottom and sides
- Pre-scored, double fold, uniformly glued seal keeps product in and dirt out
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- Seal readily opened, yet tamper-proof
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FOR SALE: Resina Standard Copper, Horta HBV-18, Cotton Tube Fillers and Closers, World Auto. Front and Back Labeler, Penny Labelites, and many others completely rebuilt and guaranteed. List your needs with us. Package Machinery Exchange, Inc., 31-15 45th St., Long Island City, N. Y. YELLOWSTONE 2-1366.

EQUIPMENT FOR SALE: (3) Transwrap—(1) Model "A," (1) Model "B," (1) Nu-Way Labeler Model V-4, (1) Triangle Automatic Double Spout Filler & Conveyor Model S.P.A. (3) Kohstrom Volumetric Fillers with Conveyors, (1) Semi-Automatic Labeler for square jars, (1) Bache Chocolate Shred Machine and Conveyor, (1) Dough Boy Sealer, (1) Champion Wire Stitcher, (2) Automatic Cap Tighteners. All equipment in A-1 condition. Box 270, Modern Packaging.

FOR SALE: Box machines; Packaging machinery; Fillers; Mixers; Labelers; Cappers; Case Sealing Equipment; etc. What idle equipment do you have for sale? Consolidated Products Co., Inc., 61 Garden Street, Hoboken, N. J. HO 3-4428. New York Tel: BA 7-0600.

ONE TRANSWRAP MACHINE B: Slightly used, make 1950, with vibrated hopper, bucket conveyor, auger feed, pyrometer and photo register, cellophane and polyethylene sealing units for up to 4 sq. bags powdered material, offered at reasonable price. Contact Miltenberg & Samton, Inc., 10 East 40th St., New York 16, N. Y.

WORLD'S LARGEST STOCK OF WRAPPERS

Rebuilt and guaranteed. At great saving. All types and sizes of wrapping machines now available for immediate delivery. High speed Pneumatic Seale Packaging Unit consisting of Carton Feeder and Bottom Sealer, 2—Two Seale Weighers, Top Sealer with Compression Drying Unit, Glue Tight Wrapper, Interconnecting Conveyors. Package Machinery FA4, FA3, FA2, FA Wrappers, with and without Electric Eye. Hayssen 3-7, 7-11, 8-18 Automatic Cellophane Wrappers. Hudson Sharp Campbell Model 2W Cellophane Wrapper. Oliver Model 799-J Wrapper. Stokes and Smith Transwraps. Peters Carton Forming and Lining Unit. Standard Knapp 429 Automatic Carton Sealer. Cero Carton Sealer. Tell us your requirements. Write, wire, phone collect today.

Union Standard Equipment Company
318-322 Lafayette Street
New York 12, N.Y.

FOR SALE: Multi-color aniline press, 25" web. Gas dry, air cooled and rewind. AC motor equipment. Available immediately. Men C. Prince, 606 South Dearborn, Chicago, Illinois. Phone: Webster 9-5136

FOR SALE: One Hayssen Model 3-7 Carton Wrapping Machine with electric eye, rustproofing, top labeling device, casters and splash proof motor. This machine was used only eighteen months and is in excellent condition. Reason for selling—we have sold out and are disposing of all equipment. Gateway Creamery Company, Joplin, Missouri.

FOR SALE: 72" Cameron Mill Type slitter approximately 10 years old—wore out, perfect working condition. For information write to Box 258, Modern Packaging.

FOR SALE: Simplex B17 Cellophane Bag Making Machine, capable of making deluxe bags, gusset bags, etc. Has attachments for making printed bags, holes in bags and double labels. Have plates for most size bags. Contact B & B of New Jersey, Clifton, New Jersey.

FOR QUICK SALE: Packomatic Packaging Machine, 1952 Model. Used only 2 years. Complete with 2 motors—220 volts—60 cycle—3 phase AC, and speeds up to 600 cs per hour, with 30 second drying time. CBC Machinery, 324 Park St., New Britain, Conn.

FOR SALE: Doughboy continuous band heat sealer. Used very little. For polyethylene and other plastic film. 6" table gummer—perfect condition. Box 272, Modern Packaging.

FOR SALE: 1 Aluminum Seal Vial Capper, Series 6, Type AC, for 20 mm Stericaps. 6 Styl-O-Matic Chain Conveyors, Island Equipment Co. 2 Stokes and Smith Automatic Heat Sealing Machines. 2 St. Clair Vial Stoppering Machines for 1, 3 & 10 cc vials, 60 vials per minute. 1 Same as above except 30 vials per minute. Box 273, Modern Packaging.

Machinery and Equipment Wanted

WANTED: Pneumatic Seale Packaging Line, Capper, Labeler, Cellophane Wrapper. P. O. Box 1351, Church St. Station, New York 8, N.Y.

WANTED: Cameron type slitter with double take-off, 40 to 50" wide. Must rewind to 18" diameter. Box 262, Modern Packaging.

WANTED: Heinrich 315" 3 or 4 color printing press for roll to roll cellophane printing, not over 2 to 3 years old. Give Details. Simplex 1C or 4C cellophane bag machine with electric eye and duplex wall sealer, must be in perfect condition, not more than 1 year old. Also Simplex pouch machine 27 or 7-24. Also Simplex polyethylene machine with automatic stacker, not more than 1 year old. Interested in any offering of any high speed rotary cellophane bag making equipment. Any of the above must be at attractively priced. Box 271, Modern Packaging.

Help Wanted

SALESMAN WANTED

Salesman familiar with packaging industry and aluminum foil; to sell for one of country's largest aluminum warehouse suppliers. Huge potential. Give particulars.

Box 251, Modern Packaging

CONVERTER PLANNING NEW LAMINATING DEPT.: Needs top man to supervise purchase, installation and operation of equipment. Extensive experience in this field required with emphasis on foil and other light weight material wax and glue mounted. Engineering background desirable. Include complete resume of experience. Personnel Department, The Lord Baltimore Press, 1601 Edison Highway, Baltimore 13, Maryland.

PACKAGING ENGINEER

To head Research Development Division of leading NY industrial design organization. Basic experience in following fields: folding cartons, shipping containers, paper technology; plastics; foil, films, laminates; glass bottles, jars, closures, caps, cans; tubes; high-speed packaging machinery and materials handling equipment; specifications, package testing, efficient production methods, cost reduction. Complete resume first letter. All replies strictly confidential. Our organization knows of this ad.

Box 252, Modern Packaging

MACHINE DESIGNER: Flexible bag packaging machinery manufacturer has opening for an experienced engineer capable of designing complete machines. Top pay, insurance, vacations. Excellent opportunity and room for advancement. Located in excellent midwestern city. Our employees know of this ad. Box 253, Modern Packaging

WANTED: Engineering draftsman with some knowledge of embossing, coating, and paper converting techniques for position available in engineering department of leading building materials manufacturer. Box 254, Modern Packaging.

PACKAGING MATERIALS SALESMAN: Represent Extruder of Polyethylene Film. Exclusive coverage New England, New York State, New Jersey, Pennsylvania, neighboring territories. Box 256, Modern Packaging

MIDWEST CONVERTER: Supplying Polyethylene and other flexible packaging materials since 1911, has several openings in territories exclusive of East and West coast. Commissions paid on all sales in territory. Reply, giving lines carried and manufacturers represented. Box 257, Modern Packaging.

MACHINE DESIGNER: Leading manufacturer of dairy packaging equipment, Midwest location, has opening for experienced engineer capable of designing complete machines. Good pay, bonus plan, insurance, paid vacations, and opportunity for pleasant, satisfying long-time association. Box 258, Modern Packaging.

MANUFACTURERS REPRESENTATIVES: We have several territories open to active organizations to sell our imprinting equipment. These machines are of advanced design and can print on round, flat, or any irregular surface whether it be plastics, wood, glass, metal, fibre, etc. Reply giving present activities and territory. Box 260, Modern Packaging.

PACKAGE DESIGNER: Here is an opening for an artist interested in a promising career in developing designs for flexible packages for a leading converter, located in Midwest. Working conditions are pleasant and on-the-job training is available if your experience is limited. Thorough art training is necessary. Send your resume through Box 261, Modern Packaging.

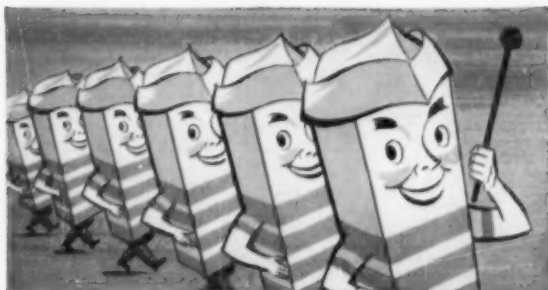
PRODUCT DEVELOPMENT ENGINEER: Nationally known manufacturer of packaging specialties requires a man with creative ability for product development and market research work in industrial and retail packaging. Background in paper, converting and graphic arts important, but not essential. Write, giving complete background and experience. Box 263, Modern Packaging.

SALESMAN WANTED: Manufacturer of films for packaging of powders, foods and liquids has opportunity for responsible salesman. Knowledge of properties of transparent packaging materials desired. Call on manufacturers and processors. Seasoned sales background preferred; but don't hesitate to write if you know the business though not selling now. Attractive salary with expenses. Box 265, Modern Packaging

SALES REPRESENTATIVES WANTED: For New England and Southern States. Progressive Eastern manufacturer of plastic packaging requires energetic representatives in New England and South. We extrude our own sheet and produce a variety of highly competitive packages, including vacuum formed packages, plastic folding cartons and sleeves, etc. Commission basis. Excellent opportunity for alert, ambitious salesmen. Send resume and availability for interview in your area to Box 269, Modern Packaging.

(Continued on page 218)

New Wax-Polyethylene Blends Greatly Improve Dairy Cartons



New Blends Contain A-C* POLYETHYLENE

Suppliers of dairy waxes are now fortifying wax with A-C POLYETHYLENE, giving the dairy industry major improvements in cartons without changes in production facilities. A-C POLYETHYLENE-wax blends are now shipped in liquid form in tank cars or trucks or in slab form. Dairy users of these pre-blended A-C POLYETHYLENE-wax combinations report many product and also production advantages.



Coating Improves Carton Strength

Reductions in bulging and number of leakers were the first advantages noted by many dairies. Cracking, chipping, flaking and rupture are all diminished when the smooth, pliant coating is applied. A-C POLYETHYLENE-wax blends offer higher tensile strength than ordinary wax coating.

Appearance Also Improved

Color and general brightness of the carton are improved. The new blends give more uniform and more homo-



A-C Polyethylene



genous coating on bottom and sides. Printing stands out, the appearance of your product is enhanced. Dairies everywhere have found that A-C POLYETHYLENE-wax blends are superior. Ask your wax supplier for this fortified wax blend today!

Production Problems Reduced

A-C POLYETHYLENE-wax blends are easy to use without changes in waxing equipment. Some users even report increased coverage per pound of wax. Containers are easier to process because of reduced wax accumulations on filler section runners. Machinery stays clean, thereby reducing maintenance.

Blends Are Ready To Use

A-C POLYETHYLENE-wax blends are available in quantity from dairy wax suppliers. Millions of dairy cartons are coated every day with A-C POLYETHYLENE-wax blends.

Ask your wax supplier about A-C POLYETHYLENE or mail in coupon for more information.

*Trade-mark

SEMET-SOLVAY PETROCHEMICAL DIVISION

Allied Chemical & Dye Corporation

Room 540

40 Rector Street, New York 6, N. Y.

- ☐ Please send me literature on A-C POLYETHYLENE-wax blends.
- ☐ Have my local supplier furnish information on the advantages of A-C POLYETHYLENE-wax blends.

Name _____

Title _____

Company _____

Address _____

City _____ Zone _____ State _____

(Continued from page 216)

PRODUCT DEVELOPMENT SPECIALIST

Needed by one of the nation's leading manufacturers of protective packaging for food products; to engage in the design and development of cheese packaging materials. College graduate, age 23-35, with degree in Dairy Technology or Engineering desired. Submit resume of training and experience to:

Personnel Department
Marathon Corporation
Menasha, Wisconsin

PACKAGE DESIGN SALES EXECUTIVE: One of the largest package design consultants in New York has an opening for a sales executive to solicit nationally known manufacturers of packaged merchandise. He should have the following background and characteristics: Substantial experience in packaged merchandising materials and techniques and ability to use this experience effectively. Creative, imaginative and inventive, yet practical. Able to verbalize ideas rapidly whether oral or written. Ability to understand motives of others and size up complicated human relations situations. Enjoy contact work and find persuading others rewarding. Able to work with sustained concentration and to pay proper attention to both details and the overall aspects of the job. An effective organizer and administrator able to grow into a position of top level responsibility and decision making. Our staff knows of this ad. Replies will be held in strict confidence. Box 264, Modern Packaging.

SHIPPING SUPERVISOR: Leading New York paper converter seeks energetic young man with thorough knowledge of shipping procedures and previous supervisory experience in specialty bags. Excellent salary and fine opportunity to make rapid progress for qualified man able to assume responsibility. Box 274, Modern Packaging.

ASST. PLANT SUPT.: Planning—Supervision—Control. Top notch paper bag machine adjuster (30-45) completely familiar with automatic paper converting machinery. Experienced in manufacturing supervision, quality and waste control. Ability to train adjusters and supervisory personnel. Metro. New York specialty bag plant, with over 500 employees, offers top salary for quick thinking line executive with excellent opportunity in an expanding organization. Send resume and salary requirements. Box 275, Modern Packaging.

Situations Wanted

SUCCESSFUL PACKAGE EXECUTIVE: Now director—styling and design—of one of the largest flexible packaging concerns seeks fuller utilization of his demonstrated abilities. Unusually versatile man with imagination, inventiveness, vision, and technical sales experience whose special aptitudes and methods have resulted in extraordinary sales records. Familiar with all phases of flexible packaging, from development, design, and production through market exploitation—Can assume responsibility for building, directing, and energizing a productive technical or product sales organization. Have several valuable patentable developments, one of which may now secure a \$500,000 yearly foil lamination. Prefer to associate with a smaller concern entering or expanding their flexible operations in the graphic and laminating field which value principle and conscientious achievement. Box 266, Modern Packaging.

PRINTING PRODUCTION: Or buyer's post wanted in East. Expert on preparation of material for quality color reproduction. Lower costs on sound, common-sense basis guaranteed. Fifteen years diversified experience graphic arts. Specialist in gravure. Exceptional background all printing processes, packaging techniques, art, photography, type, layout, estimating, scheduling, follow-up. Able administrator. Box 267, Modern Packaging.

MACHINERY SALESMAN: With own New York Office interested in representing Manufacturer of Graphic arts Machinery, Packaging Machinery, Finishing Equipment or related Supplies in the Eastern Area. Have 20 years experience in the Graphic Arts with good reputation and high integrity. Box 268, Modern Packaging.

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PLASTIC SCRAP & REJECTS IN ANY FORMS: Cellulose Acetate, Butyrate, Polystyrene, Vinyl, Polyethylene, etc. We pay top prices for clear, colored and printed scrap in any quantity. Box 250, Modern Packaging.

PARIS: Paper dealing owning very fine premises at Eastern Gate of Paris, reinforced concrete, 1000m² floor space, very high with gallery, 30 ton weighbridge, 3 large main entrances on 2 streets, 2 trucks of 4 and 5 tons, commercial organization, very fine offices, 2 outside telephone lines, inside telephone, is looking for a manufacturer wishing to distribute in France new article principally packaging article, but is willing to study any proposition, manufacture possible on the spot. Etablissements Talliens, 68 rue des Bruyeres, Les Lilas, (Seine), France.

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Up to 40 words \$10.00	Up to 120 words \$20.00	Up to 180 words \$30.00
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du Pont...

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The successful applicant will provide consultation in the selection and use of packages, shipping containers, and packaging machinery, and will be expected to develop and execute major engineering programs in the industrial packaging field.

Please send complete resume, including details of education and experience, to:

MR. J. C. COSTELLO, JR.

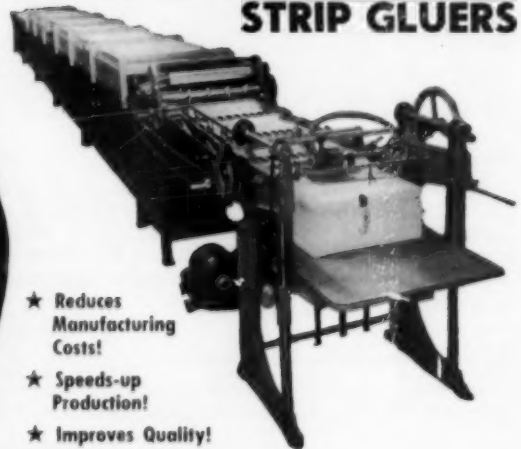
Personnel Relations Section
Engineering Department

E. I. du Pont de Nemours & Co., Inc.

Wilmington 98, Delaware

Built for dependable service

POTDEVIN STRIP GLUERS



- ★ Reduces Manufacturing Costs!
- ★ Speeds-up Production!
- ★ Improves Quality!

Automatically feeds, applies glue, dries and delivers to next station for further processing. Adjustable up to 21" wide.

There is a POTDEVIN for every coating job... from 6 inch label pasters to large 46 inch coating machines.

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244 North St.

Teterboro, N. J.



Designers and manufacturers of equipment for Bag Making, Printing, Coating, Laminating, Gluing and Labeling.

Kennedy PACKAGES THEM ALL



And no wonder. With a half century of experience...and a mile long line of men and machines...no packaging problem is too tough.

But more than this, Kennedy's sole devotion to the problems of packaging has meant versatility, improved methods, prompt service and lower costs. Whatever your product may be, Kennedy can package it...to protect it, or sell it, or both.

Our technical staff is available for immediate consultation through offices in fifteen principal cities. Samples and quotations furnished promptly.

Kennedy

CAR LINER AND BAG CO., INC.

SHELBYVILLE, INDIANA

Fabricators of bags, liners, covers, shrouds and component parts of papers, plastics and foils.

NEW YORK • DETROIT • CLEVELAND
SAN FRANCISCO • PORTLAND • BUFFALO
CHATTANOOGA • ATLANTA • CHICAGO
DENVER • SEATTLE • LOS ANGELES
JACKSONVILLE • PHILADELPHIA

HIGH POINT, N. C. • GRAND RAPIDS

For **BETTER** package
printing

PAMARCO

FLEXOGRAPHIC and GRAVURE
ROLLS

Precision made by
Cylinder Specialists—

- GROUND FINISH
- DYNAMICALLY BALANCED
- HIGH GRADE STEEL TUBING
- ABSOLUTE CONCENTRICITY
- ACCURATE DIAMETERS
- NO-FLEX CONSTRUCTION



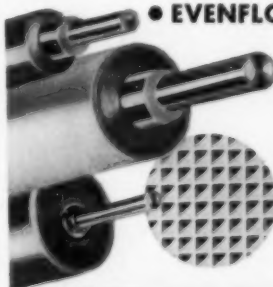
• FLEXOGRAPHIC PLATE ROLLS

Can't flex or whip, assure perfect impressions on every run. Tubular construction reduces weight, tests stronger than solid steel. Ground finish to exact specifications.

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PLAIN OR COPPER PLATED — Accurate core or base cylinders for rotogravure process reproduction. Recommended for long service in continuous printing production. Each roll carefully inspected prior to shipment.

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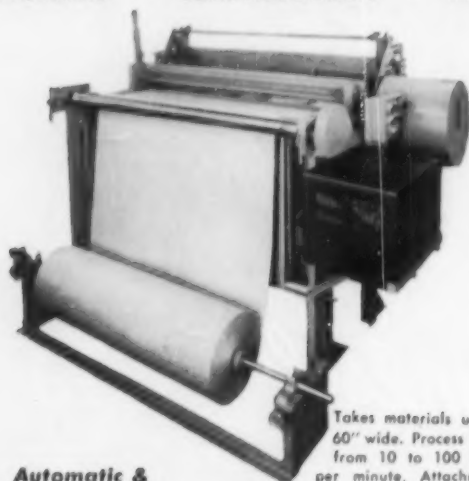
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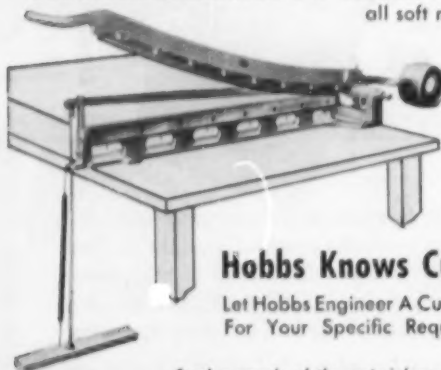
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